THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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MARCH IN NEW ENGLAND.

March, month of "many weathers," wildly comes,
In hail, and snow, and rain, and threatening hums,
And floods:—

* * * * * * *

Loosed from the rushing mills and river-locks,
With thund'ring sound and overpowering shocks.
From bank to bank, along the meadow lea,
The river spreads and shines a little sea.

Clare's Shepherd's Calendar.

MARCH comes in heralding the Spring months, but by no means excluding winter weather. In our climate, March is sometimes more boisterous and trying than either month of the winter, — alternating with snow and rain, hail and fierce winds. Sometimes the roads are blocked with drifts which are frozen by frosty nights, so that it is dangerous to attempt a passage over them, and then softened by the sun's rays, so that when once in them it is difficult to get out again. Even the railroads become so much obstructed as to stop travel for hours in succession,—snow ploughs are in demand, and unwonted screams of an aggregation of locomotives fill the air. But this, usually, is of short duration; just long enough, perhaps, to remind the elder class of our citizens of the slow and wearisome modes of travelling by stage coach or wagon.

Only some 30 or 40 years ago, stages were run daily from most of the villages of New England to their large cities. At 20 miles from Boston, a team of four horses and coach would leave at 4 o'clock in the morning and reach Boston at 10 A. M., or at 2 P. M., or 9 at night, as the weather and condition of the roads might be. Nine passengers inside, three on each seat, with legs dovetailed into each other; noses blue and cold; fingers numb, and feet freezing! The *stout* passengers inside getting altogether the best time of it,—having fallen asleep, and rolling over plump into their neighbors every time the coach gave a lurch by thumping over a stone or dropping into a frozen rut. The airy position outside with driver, was scarcely less desirable than the crowded one within,—for there was room enough for stamping the feet and threshing the arms.

The roads through the month of March were usually in very bad condition, by one or another of the things enumerated above. The 20 miles' ride was occasionally sufficiently exhausting to require a day's rest before proceeding to business.

But New England has not been alone in

this particular. Travellers give even more graphic descriptions of the wretched condition of the highways in the Southern States.

Even in England, progressive as she has been, it is not long since a journey of a hundred miles was an undertaking which few people dared to hazard.

Pennant, an English writer who died about 70 years ago, describing a journey from Chester to London, says,—"the first day, with much labor, we got 20 miles, and at the end of the sixth day, to London. The strain and labor of six good horses, sometimes eight, drew us through the sloughs of Mireden, and many other places. We were constantly out two hours before day, and as late at night; and in the depth of winter proportionately later. Families who travelled in their own carriages were dragged up in the same number of days, by three sets of able horses." The duke of Somerset lived less than 50 miles from London, and yet he had a half-way house as a resting place for the night by any part of his families travelling to the metropolis.

But with all its turmoil of the elements and bad roads, *March* is the harbinger of Spring —that season which excites all organized things. There is a new awakening in all. Man feels its force and is led to expatiate upon the Wisdom and Power which bring the wonderful changes of the seasons in their turn. The dumb animals manifest it in various ways, and the earth, shaking off the lethargy in which it has been bound, begins to spread over its surface a new life in a thousand different forms. New plants quickly spring up, new colors everywhere meet the eye, new sounds please the ear, and all thoughtful beings love to exclaim, "How wonderful are Thy works; in Wisdom hast thou made them all!"

Look at the *trees*, and see what *March* is doing there. Only a few days since, and their thin and apparently dry twigs, indicated no signs of life. Now mark the change, and observe what the sun's light and heat can do. *March* winds may blow away their breath, and *March* clouds shed their snow and hail upon the trees, but when the winds are hushed and the clouds scattered, two or three days of unclouded sun rouses them into a discernable activity. See how the buds on some of the elms have swollen; how their tops have thickened up; how the coverings of the buds glisten in the sunlight! All is life and activity there now. The sun has asserted its powerful sway, making the trees feel its influence through every pore. But this is not all due to an increased temperature, but largely through the agency of solar light. The nature of this action we can only understand from its effects. Three successive days of clear sunlight will excite so much activity in the twigs of a tree whose roots are in sheltered places, that an obvious thickening up among the branches takes place. This will occur when the temperature is much below the freezing point. If the clear sunshine is immediately succeeded by clouds and severely cold weather, the thickening up of the twigs will disappear in a considerable degree, the buds shrinking into and being closely encircled by their coverings or scales. These are closely applied to each other, and those on the outside are largest and thickest, thoroughly protecting the tender centre of the bud which is the seat of its vitality.

March, then, has its appointed work of beneficence to do, as well as its changing skies, bad roads, and rough winds to be endured. It will be found all right, if we ourselves are right; teaching us lessons of confidence and resignation which more quiet elements might not impart. At any rate, let us endeavor to receive and improve the lessons which stormy March may suggest this year.

For the New England Farmer.

THE GARDEN IN MARCH.

The best soil for a vegetable garden is generally illy adapted to growing fruit. While a deep rich soil is of the first importance to the production of fine vegetables, it is now pretty generally condemned for the fruit garden. Hence we should inform ourselves in regard to the requirements of the many different varieties of our productions; for while we have to go to work one way to obtain fruits, a different course must be pursued in many respects, to obtain the best vegetables. For the growth and ripening of our fruits, direct sunlight is essential; but many vegetables and roots hide themselves from the light in a deep rich soil, while for the full development of the foliage of vegetables, sunlight is highly essential to most varieties. Although it cannot be expected that much actual labor can be done in the garden during the month, yet

it is a good time to make needed preparations. Spring weather will be upon us soon, and our farm duties will require a large share of attention. We can now decide what we will cultivate the coming season, and make our plans accordingly. Mankind are creatures of habit in respect to the vegetables they eat, as well as in other things. The French are noted Salad eaters, depending upon Salads for a relish to every meal. The English use them but little, while we are largely meat and vegetable eaters, using comparatively few Salads. Some nations find in Artichokes, Cardoons, &c., their favorites, and grow them to the exclusion of other varieties.

Believing that a diet composed largely of vegetables is the healthiest and most economical, we commend it to all, and especially to the poor, and advise to the growing of good vegetables in greater variety.

The potato is the main vegetable, and among a considerable class almost the only one used. This vegetable is of inestimable value to all classes and its culture demands our first and greatest attention, in order to retain its health and purity. Notwithstanding the time it has been cultivated among us there are many characteristics and requirements of it with which we are comparatively ignorant; and many more in which we disagree as to which is best. No subject has been more freely discussed by cultivators than the proper method of planting, whether whole, or cut, small, large, or medium sized, yet without coming to any positive conclusion. Undoubtedly there is a right and a wrong course with this vegetable, as well as with any other plant. But with all our theorizing and experimenting, we cannot grow good potatoes with the same culture on our farms to-day as we could forty years ago.

Cold Frames.—These beds will need examining to see that the plants wintered in them are in good condition. As long as the weather remains cold, the plants should be kept dormant, or as nearly so as possible. Protection must be given cold nights, and airing on mild, sunshiny days. It is necessary to harden off the plants as fast as is safe, so as to plant out early.

Hot Beds.—Near the close of the month, if the ground is free of snow, and there are indications of the near approach of spring weather, it will answer to start the hot-bed; in the meantime the manure for heating should be accumulating and be got in readiness by piling the horse stable manures with a small proportion of cow stable, in a pile, and turning to reduce fermentation. See that the frames and sash are in perfect order.

Horse Radish.—Dig, grate, and prepare for table use. This is an excellent appetizer if prepared in the following manner: grate it as fine as practicable, press it in wide mouthed bottles, and add a pinch of salt with water sufficient to moisten the whole; when used, if you prefer vinegar, take out a little in a cup and add the vinegar; but do not put it up in vinegar, as it deadens the life, and the peculiar tang is lost.

Seeds.—Have you looked over the list we gave last month and decided what you will grow this season? Have you obtained any that you lacked? If not, no time should be lost. Compare notes with your most enterprising neighbor; perhaps he has seeds saved from choice vegetables which you did not grow, and would be willing to exchange, or sell, or give. Get good seed, true to name, and be sure that they have the vital principle in full. A seed that will only just grow, is about as good as none; indeed I should prefer not to have any, for then I should know what to do.

W. H. White.

South Windsor, Conn., 1871.

For the New England Farmer.

RECENT FARM EXPERIMENTS.

In looking over the Report of the Commissioner of Agriculture for the year 1869, I find about thirty pages devoted to recent farm experiments. It contains some very valuable facts concerning the value of various fertilizers applied to different crops, and different soils.

At the Michigan Agricultural College in 1868 one acre of very light sandy soil was selected from a clover field. Upon different parts of this piece there were applied muck and leached ashes; muck and lime; muck and ashes; ashes and gypsum; ashes, muck and some other manures. The muck and leached ashes produced the most clover; the gain over the adjoining unmanured plat being at the rate of 1856 pounds per acre, muck and ashes (not leached) made a gain of 1,152 pounds. Where muck alone was used, only 736 pounds per acre was realized above the amount cut on the unmanured ground. The gypsum caused a gain of 1,408, and muck with slacked lime 752.

As there is much dispute in regard to the worth of muck and ashes used upon land, all such experiments are of great value to every farmer; and ought to be carefully noticed. Of course the same results may not be reached upon different soils and at different times, so one cannot at once decide what manures are the most profitable in his own case.

I have used muck, ashes, lime and plaster to a considerable extent with various success. Two years ago we dug a lot of muck at the foot of a hard-wood forest where it was about two feet deep. A portion of this we drew on to a piece of meadow in close proximity, which we had prepared for corn. All of this we manured in the hill;—using horse and hog manure upon a portion of it, and muck upon the remainder, placing them side by side, a shovel full of each in a hill. On a part of the muck a handful of lime was put in each hill. During the summer but very little difference could be seen in the corn, and when it was harvested

the corn where the muck and lime was put, was about equal to that upon which was placed the manure drawn from the barn; and the clear muck gave only a little less yield than the other.

Upon another piece we spread a good coating of muck, harrowed it in, and planted with potatoes. In this case the crop was about as good as that which received a dressing of barn yard manure. This was a wet season. The next year was very dry, and similar experiments being made, the result was not so successful in favor of the muck. On the driest portion of the field, the corn was considerably smaller than where the manure was applied.

I would like to know the experience of others in this matter. Is a dry season unfavorable for muck? I would much prefer carrying muck to the yard and mixing it with manure, lime and ashes; but in these cases, it was too far away to make it profitable to do so. C. H. FARNSWORTH.

Montpelier, Vt., Jan. 20, 1871.

PREMIUM BUTTER---DUTCH STOCK.

Mr. Thomas Baker of Barton, Vt., who received premiums on butter at the Orleans country fair, last fall, submitted the following statement:—

"This butter is made in all respects as I make butter all through the season. My cows are pastured upon land that was never ploughed, but has been in grass ever since the hardwood forest has been cleared from it. The cows have salt twice a week. Milking is commenced at five o'clock in the morning and at five in the afternoon. As soon as possible after milking, the milk is taken to the milk room and strained into common tin pans set in racks. The room is used entirely for milk and is well ventilated in summer, and is warmed by a stove in fall and winter. The milk is skimmed when it has set thirty-six hours, so that some is skimmed in the morning and some at night. At each skimming about an ounce of salt is put in the can and the cream stirred. I churn through the summer every other day. The butter comes in about twenty minutes. The butter-milk is then drawn off, cold water poured in and the floats turned round a few times. Then the water is drawn out and more cold water turned in and agitated with the butter. When the second water is drawn off most of the buttermilk is washed out of the butter. About two-thirds the necessary quantity of salt is then put upon the butter in the churn. By turning the crank a few times it becomes pretty well worked in. The butter is then put upon the worker and more salt added, so that an ounce of salt is used to each pound of butter. I do not try to make my butter dry by working it, but to salt evenly. I then pack the butter for market in spruce tubs holding fifty pounds each. The tubs prepared by either burning some brimstone in a dish, in the tub, and then scalding it out, or by filling the tub with hot water in which a tablespoonful of saleratus is dissolved. Either of these methods takes about an hour's time to prepare the tub. That is, it soaks an hour or smokes an hour. Either method is satisfactory. I consign my butter to a dealer in Boston as soon as it is made.

Among my herd this summer I have milked nine full blood Holstein (sometimes called Dutch) cows and heifers, and am well satisfied of their great value as dairy cows. My average yield of butter has never been better than this year; and the color, flavor and texture of the butter has never been more satisfactory."

THE GRAFTON FERTILIZER.—As some of our New Hampshire correspondents have commended this article very confidently, both as a fertilizer and destroyer of insects, we think our readers ought to know what scientific men think and say of it. In his address at the late Farmers' Convention at Manchester, Dr. Nichols said:—

A heavy powder called the Grafton mineral fertilizer has come into the market within a year or two, and, it is claimed, has secured a large sale at the usual price of concentrated fertilizers. What is the nature of this powder? Let us judge of it by the analysis which is presented in connection with its sale. Here it is:

Silica	30.30
Protoxide of iron	6.27
Lime	20.60
Magnesia	11.17
Carbonic acid	32.11

This statement gives 30 per cent. sand, a small quantity of iron, and the remainder is carbonate of lime and magnesia. One-third (the sand,) it is plain to see, is worthless; the iron is of no account, as every soil in New England furnishes from the decomposition of the sulphurets an abandant supply; the carbonates of lime and magnesia are worth something, but how much? But little more than ground oyster or clam shells. I would hardly give five dollars at on for this insoluble, unassimilable dolomite, delivered at my farm. In fact, I should not want it at any price. I make these remarks in the interests of agriculture solely. I do not know the names of the parties who grind the rock or vend the powder. In justice to them it should be said that they do not appear to sell it under any false statements as to its chemical composition; the evil consists in holding it as a fertilizing substance of large commercial value.

HOW LONG A HOG CAN FAST.—The *Farmers' Home Joirnal* of Lexington, Ky., says: Mr. Wm. Hardin, of this country, missed about four weeks ago one of his fat hogs. He supposed it had been stolen. A few days ago he was hunting in one of his fields, his dogs were attracted to a sink-hole, and on examination the hog was discovered at the bottom in which there was a quantity of mud and water. The hog was drawn out and afterward well fed and is now doing well, though it laid for twenty-eight days without food.

TREES.

Ornamental and Fruit,—their Cultivation,—How they Grow,—Their Diseases, Enemies, and Uses.

ADMIRERS and lovers of trees are not confined we presume to civilized nations; but in all civilized communities they are certainly found, and by their zeal arid wastes have become fruitful places, purling waters chase their way down hill-sides that had long been dry, and make meadows green and fertile, as they go on their way to larger streams. In some instances, villages that appeared as barren and unattractive as a desert, have been changed into beautiful parks, giving to the dwellings a charm and attractiveness which no style of architecture and no gloss of paint could have imparted. Such an example may be found in the town of Northfield, Mass., where a young lawyer stimulated the citizens to join him in planting four rows of forest trees through the broad main street of that now beautiful village. How many sit under their shade, enjoy their music, admire their beauty, and bless the memory of THOMAS POWER!

The greatly increased consumption of wood as fuel, and of all sorts of timber in the arts of various kinds, has at length aroused our people to energetic action in planting both forest and fruit trees. Another thing has contributed much to these new efforts,—the belief now generally entertained, that trees were not made merely to afford us fuel and timber, fruit and shade, but for the essential influences which they have upon the soil and crops. Various portions of the earth's surface have become barren lands, or baked clays, in consequence of taking off the trees from wide reaches of land. Addison found this the case during his travels in Italy, and referred to it in one of his poems:—

"Sometimes misguided by the tuneful throng,
I look for streams immortalized in song,
That lost in silence and oblivion lie,—
Dumb are their fountains and their channels dry."

Fortunately, the scarcity of timber, the high prices of fuel, and these new views of the offices which trees are designed to perform, have arrested so much attention that tens of thousands of trees, both forest and fruit, have been set out within a few years past. Nurseries of them have been established in every direction. New varieties of trees are being imported from foreign countries, and exchanged from State to State within our own extended territories. New varieties of fruits are constantly introduced, their merits tested, and efforts made to learn what varieties are best adapted to particular soils and sections of the country.

Another point of importance is the attention paid to obtaining a succession of fruits, which shall ripen at such seasons that the market and our tables may be supplied with fruit at all seasons of the year. As an illustration, we may cite the peculiar properties of the

River Apple,

which originated in Massachusetts. Instead of being called the "River," its name would more appropriately be *The Poor Man's Apple*; for it is, emphatically, the fruit of all others which should grow near the poor man's door. Some say the tree is a poor bearer. It is not so according to our experience. Give it plenty of room, on a good soil, and no such complaint will be made of it. When properly trained, the tree will throw out limbs near the ground, spread them in circular form, and give a large and showy head that is beautiful. The fruit is generally of medium size, but in some cases quite large. It is flattish; yellow, much red in stripes; tender, juicy; pleasant, slightly acid. It is a fine cooking and eating apple.

The peculiar and valuable quality of this apple, however, is its property of ripening gradually through a period of several weeks. Our attention has been repeatedly called to trees near our own doors, and especially so to several trees in the neighborhood in the summer and autumn of 1861, which were loaded with fine fruit, and when there was nearly a total failure of apples generally. The apples on these trees began to drop during *the last days in July*, and were in excellent condition for cooking or for eating without preparation. They continued to ripen and drop, a few each

day, until the last of October, a period of eight weeks. What remained were then gathered, and remained good four weeks longer, when the supply was exhausted. From two trees, such as are described above, some $25.00 worth were sold, a family of seven or eight persons was constantly supplied with all they wanted for eating and cooking, and small baskets filled with them were occasionally sent to neighbors.

Altogether, it is a remarkable apple; it ought to be on every farm, but, not perhaps, more than a few trees at most, unless near a market that can be easily reached daily. For the villager, or mechanic, who has room only for a single tree, it is the apple of all others.

We have alluded to the great scarcity of timber needed in the mechanic arts. Visiting the new house of a neighbor, he informed us that the white pine lumber used for finishing cost $75 per thousand feet. The *best* quality of white pine lumber was selling at $90 per thousand feet. Both qualities came from the State of Michigan.

Some railroad men, anticipating the difficulties of procuring suitable timber for their works, are about combining to call upon the State to enforce the planting and preservation of trees for mechanical uses. Even now, they find it difficult to get suitable lumber for constructing freight and passenger cars.

It is quite probable that there are as many forest trees standing in Massachusetts now, as there were thirty years ago. But there are very few timber trees. There is scarcely a house built in any town in the State, but a considerable portion of the lumber comes from abroad! We reside in the country, and in a region well wooded with young trees, but most of them are cut when in the prime of their growth to meet the demand for them, so that no forests affording large and good lumber are in promise among us.

"Our increasing population creates a new demand for timber, notwithstanding the vast increase in the use of iron, brick and stone. Railroads are enormous consumers. The sixty thousand miles now in use or soon to be completed demand an almost incalculable amount of wood. With 2500 ties to a mile, these roads require 150,000,000; and these ties or sleepers decay and require renewal in about five years. This vast number causes the destruction of a nearly equal number of incipient timber trees—for they are usually cut when of a size suitable for only one or two sleepers.

The lumber used in fencing these roads, in building bridges, depots and cars, is quite an item to be added to former consumption. Then of the fuel! It is estimated that the distance run each day by trains on all the roads is 308,000 miles. Each engine with an ordinary train consumes about one and three-fourths cords of wood for every twenty miles. This gives a daily consumption of wood for this purpose alone of 21,560 cords, or six and a half million cords annually. * * It will require half a million trees annually to supply the decay on the telegraph lines now in use."

DECLINE OF DAIRY PRODUCTS.

In addition to the American Dairymen's Association, which recently held its Sixth Annual Meeting at Utica, N. Y., Massachusetts, Vermont, Ohio and other States and localities have dairymen's associations with organizations more complete, meetings more interesting, and action more efficient than has been attained in any other branch of agricultural industry. Throughout the "dairy belt" of our broad country, the improved system of dairying is extending in all directions. Nor is it confined to our country. Even John Bull, with all his conservatism and self esteem, is inquiring into the American system, and the Yankee cheese factory is actually working up the milk of the cows of the Good Old English Gentleman. In fact, dairying is rapidly becoming a specialty—a fever. Farmers and farmers' wives and daughters, have "dairying on the brain." Cheese factories, butter factories, condensing factories are to relieve the indoor and outdoor drudgery of the old system, and to make farm life more attractive, profitable and scientific.

But while thus congratulating ourselves on the success of progressive agriculture in the dairy line, and anticipating the time when a like improvement and melioration shall be effected in other departments of farming, a note of alarm is sounded, shrill and clear, in the *Ohio Farmer*. We allude to an article written by Mr. Anson Bartlett, President of the Ohio Dairymen's Association.

He assumes "that there is a cause, or per-

haps more causes than one, at work which will ultimately ruin the dairy interest." He fears that the dairy business will, "like the culture of tobacco in the South, leave a comparatively barren region behind it, and seek new and virgin fields for its development." He says that statistics show that Geauga county, Ohio, produced, in 1864, 6,000,000 pounds of cheese, and in 1868 only 4,000,000; in 1864 Herkimer county, N. Y., produced in round numbers 17,000,000 pounds, and in 1868 about 14,500,000,—a decrease of 2,000,000 pounds in Geauga, and of 2,500,000 pounds in Herkimer. President Bartlett then says:—

It will be found, on inquiry among old dairy regions and old dairy men, that in a majority of instances, the same farms which twenty years ago would carry forty cows, now have great difficulty in carrying thirty-five, and in some instances thirty even is too heavy a stock on the same farm where forty were kept with ease fifteen to twenty years ago; other farms are found on which there used to be twenty to twenty-five cows, which will not carry now more than three-fourths as many. Another thing, these same farms generally do not produce as much grain to sell as they formerly did, and furthermore, there has been no increase of other stock, and no more or not as much waste land. Nor are such instances isolated cases, we find them all over our oldest dairy regions, and within our own personal acquaintance we can cite scores of instances corroborating the foregoing statements.

How can we account for this state of things? There can be but one answer: the land has become impoverished; this constant drain of the elements which go to make up the butter and cheese begins to tell, and there being no return to the soil of these elements, the supply is becoming exhausted: and as nature always and everywhere insists upon compensation, the failure is perfectly natural and no more than ought to be expected, from this course of constant depletion without returning anything to the soil, or anything that will compensate for the heavy drain made from it, for every ton of cheese contains from one hundred to one hundred and twenty-five pounds of ash or inorganic elements; hence, the cheese produced by a dairy of thirty cows during a single season, will subtract from the soil some six hundred pounds, mostly phosphates. Nitrogen is an element which enters largely into the composition of cheese, and when we view the vast amount of fertilizing matter thus yearly transported from our dairy farms out of the country, we cease to wonder at the deterioration of those farms. It is the same with this as with other branches of husbandry, constant cropping without compensating the soil in the elements of fertility, inevitably produces exhaustion.

If this view of the future prospects of this important interest is correct—of which we express no opinion—it is a subject that demands the most careful consideration of all dairymen. And Mr. Bartlett suggests that a committee be appointed to investigate the matter, to collect information as to the fact and cause of the decline in dairy products, and to try experiments as to the kinds of fertilizers which can be used to supply the drain of the dairy on the soil. He also recommends that each farmer should pay more attention to making and saving manure, and to the cultivation of forage crops, such as corn fodder, Hungarian grass, Sorghum, &c., to be used when grass in the pastures fail. And for the encouragement of efforts in these directions, he says that he knows of individual farmers who have kept up the fertility of their land, and whose farms instead of depreciating are carrying a larger number of cows now than they formerly did. This class, he adds, are what some would call actually penurious in making and saving manures; everything that will add to the size or value of the manure heap is carefully husbanded; the manure thus saved is judiciously applied to the land, instead of allowing its fertilizing qualities to be wasted by exposure to sunshine and rain, freezing and thawing; and they raise crops for green fodder. He also cites the use of bone dust by English dairy farmers, and of liquid and other manures by those of Holland, &c.

YIELD OF CORN PER ACRE.

A few months since, in a criticism on some remarks that we made on the profit of stock feeding at the West, the *Kansas Farmer* assumed that forty bushels of corn per acre was a low estimate of the average production of that State, and that those who fed the crop to stock realized from eighty-five cents to one dollar for every bushel fed to either hogs or cattle. There is also a paragraph afloat in the columns of the newspapers stating the average yield of corn in Kansas at 48.4, in Nebraska 42.2, and California 41.4 bushels per acre.

In the Monthly Report of the Department of Agriculture for January, 1871, there is a table of average yield of the principal crops in the United States for 1870, and the price on the first day of Jan., 1871. The Commissioner remarks that "the most noticeable feature in the returns" on which the table is based, "is the uniformly high rate of yield of corn, as compared with 1869, as also with the average of a series of years."

According to this table the average yield of corn in Kansas in 1870, was 28 bushels per acre, instead of 48.4; Nebraska 29.9 instead of 42.2; and California 35.6, instead of 41.4. The price of Kansas corn is put at 58 cents per bushel; of Nebraska 36 cents per bushel.

By the same table the average yield of corn in Maine is stated at 33 bushels per acre; New Hampshire, 36.5; Vermont 39.6—the highest on the list; Massachusetts, 33; Rhode Island 26 bushels per acre. The price in the four New England States varied from 98 cents to $1.14 per bushel.

THE OLD BARN.

The following lines were written in 1867, by Daniel Ricketson, Brooklawn, New Bedford, Mass., for the *Anti-Slavery Standard*. The poet may have drawn his picture of some particular barn in his locality, but it will be recognized as sadly true of many still standing in other parts of New England.

No hay upon its wide-spread mows,
No horses in the stalls,
No broad-horned oxen, sheep or cows,
Within its time-worn walls.

The wind howls through its shattered doors,
Now swinging to and fro;
And o'er its once frequented floors,
No footsteps come and go.

But once, alas! each vacant bay,
And every space around,
Was teeming with sweet-scented hay,
The harvest of the ground.

And well-fed cattle in a row,
At mangers ranged along,
Each fastened by an oaken bow,
Stood at the stanchions strong.

But where so long old Dobbin stood,
His master's pride, and care,
And from his hand received his food,
All now is vacant there.

Then these broad fields, from hill to plain,
Waved in the summer air,
With choicest crops of grass or grain,
Now left so bleak and bare.

How sweet the music of the flail,
Resounding far and clear,
As borne upon the passing gale,
It reached the distant ear.

The blackbird hailed the dewy morn,
From out his rushy perch;
The sparrow sang upon the thorn,
The cat-bird on the birch.

The robin from the highest tree
Sent forth his whistle clear,
His soul partaking of the glee
That wakes the vernal year.

And childhood's merry shout was heard
The farm-yard choir among,
Which, mingled with the note of bird,
Enriched the tide of song.

The master on his daily round
With conscious pride would go,
His faithful dog, close by him found,
Attending to and fro.

Old honest "Trip" long since has gone,
And moulders 'neath the wall;
No more he takes the welcome bone,
Or hears his master's call.

The kindly master too has died,
The matron in her grace,
And dead, or scattered far and wide,
The remnant of their race.

MAINE.—The forty-second annual meeting of the old Kennebec Agricultural Society was held at Readfield corner, January 30. The by-laws were amended so as to have the annual meeting on the first Monday of January instead of the last; also, to substitute five trustees for three. The following officers were chosen:—

President—D. H. Thing, Mt. Vernon; *Vice Presidents*—Francis Fuller, East Winthrop; H. O. Nickerson, Readfield; F. A. Chase, Fayette; *Treasurer*—B. T. Richards, Readfield; *Agent*—Gilbert Hawes, Readfield; *Trustees*—S. Kilbreth, Manchester; S. G. Fogg, Readfield; J. E. Brainard, East Winthrop; J. R. Marston, Mt. Vernon; George Keith, Fayette.

NEW ENGLAND AG'L SOCIETY.

The annual meeting of this Society was held in this city, at the Meionaon, on Tuesday, February 7. The following officers were elected:—

President—Dr. George B. Loring.
Secretary—Daniel Needham.
Treasurer—George W. Riddle.

MAINE.—*Vice President*, Thomas S. Lang, of Augusta. *Trustees*, S. L. Goodale, of Saco; Columbus Stewart, of North Anson; Seth Scammon, of Scarboro'; Calvin Chamberlain, of Foxcroft; J. E. Anderson, of North Windham; Geo. W. Ricker, of Portland; Israel B. Norcross, of Charleston; Asa Smith, of Mattawamkeag; S. Wasson, of Blue Hill.

NEW HAMPSHIRE.—*Vice President*, D. H. Goodell, of Antrim; *Trustees*, Warren Brown, of Hampton Falls; Charles Williams, of Manchester; Robert Elwell, of Langdon; Geo. A. Pillsbury, of Concord; Greenleaf Clark, of Atkinson; Natt Head of Hooksett; Samuel C. Fisher, of Dover; Peter W. Jones, of Amherst.

VERMONT.—*Vice President*, Edwin S. Stowell, of Cornwall. *Trustees*, George Campbell, of Westminster; Henry Clark, of Rutland; Peleg Winslow, of Putney; George Hammond, of Middlebury; Daniel Kimball, of Clarendon; James A. Shedd, of Burlington; John B. Mead, of Randolph; Thomas H. Hoskins, of Newport; Lyman G. Bliss, of Brattleboro'.

MASSACHUSETTS.—*Vice President*, Wm. S. Clark, of Amherst. *Trustees*, S. H. Howe, of Bolton; John Johnson, Jr., of Framingham; J. A. Harwood, of Littleton; Thomas Sanders, of Salem; Richard Goodman, of Lenox; Wm. Birnie, of Springfield; C. B. Pratt, of Worcester; John B. Moore, of Concord; Jona Ladd, of Lowell; S. B. Noyes, of Canton.

RHODE ISLAND.—*Vice President*, Amasa Sprague, of Providence. *Trustees*, Obadiah Brown, of North Providence; L. B. Frieze, of Providence; J. B. Buffum, of Middleton; G. D. Pearce, of East Providence; Cyrus Harris of River Point; H. G. Russell, of Warwick; H. T. Brown, of Cumberland; J. W. D. Perry, of Bristol; W. E. Barrett, of Providence.

CONNECTICUT.—*Vice President*, G. H. Hyde, of Stafford. *Trustees*, S. M. Wells, of Wethersfield; B. Sumner, of Woodstock; Burdett Loomis, of Windsor Locks; H. S. Collins, of Collinsville; Albert Day, of Brooklyn; Samuel C. Cobb, of Hartford; H. L. Stewart, of Middle Haddam; T. S. Gold, of West Cornwall; Jonathan Camp, of Norwalk.

By the report of the Treasurer, Geo. W. Riddle, Esq., it appears that the receipts of the year with the balance on hand at its commencement, amount to $1180.24; expenditures $286.50; leaving a balance of $893.74.

Col. Riddle also reported that the amount received at the Fair and Exhibition held at Manchester last fall was $27,560.36, and the expenses, $23,798.33, with a few accounts yet unsettled. He stated that when all the bills had been paid, he thought there would be something over three thousand dollars remaining, to be divided between the New England and New Hampshire Agricultural Societies, agreeably to the agreement made last year. The fees for membership this year amount to about $700, which, added to the balance on hand, $393.74, and the amount to be received from the proceeds of the Fair, make the total sum to the credit of the Society over three thousand dollars. This is the most gratifying exhibit which the books have ever presented.

There was quite a spirited discussion as to the location of the fair. The good people of Lowell, who had procured 175 new members of the Society and paid, as Major Ladd said, some $700 into the

Treasury of the society, wished that proposals for the location of the fair should be received, considered and settled by this meeting, instead of being referred as usual to the Executive Committee.

Gentlemen from Connecticut, and from Worcester and Middlesex Counties, Mass., opposed this proposition as unfair and contrary to the laws of the association, which imposed the arrangements for the annual fair on the Executive Committee.

Mr. Pratt, of Worcester, Mass., said, I understand that there are two or three societies anxious to have the next fair held within their limits. I also understand that Lowell is here in force, and I think it is unfair to bring this matter before the meeting at this time. We are desirous of having the Fair held at Worcester, but we have made no preparations, knowing that the matter had been usually left to the Trustees, to be decided at their meeting held in March. Had we known that the question was to be decided at this time, we should have had men enough here to represent our side of the case. The fact is, there are not more than half a dozen of us here from Worcester, and we are not prepared at this time to make a proposition. All I can say for Worcester is, that we want the Fair there, and are ready to guarantee as much as any other place.

Mr. Cummings, President of the Middlesex, Mass., Agricultural Society, said, it seems to me that this is establishing a bad precedent. How do the Trustees know, how does any body know but that Worcester will send in proposals far more acceptable, if they will only give them a fair opportunity? If you will adjourn this meeting, let us know upon what grounds you propose to locate the New England Fair, and give us an opportunity, we will show you what we will do.

The gentleman from Lowell says they have contributed $700 to the treasury from new members. I will pledge you a thousand dollars from new members from the old Middlesex Society, if you want them, if that has any thing to do with deciding the question; or, if that is not enough, we will give you more. We are not to be driven off in that way.

I say, let this matter be placed before the Trustees in the legitimate and proper way. Let the people of Lowell lay before you, sir, the best proposition they have to make, and let offers come from any other society; let the reasons come from other localities why they should be selected rather than Lowell; let the whole subject be fairly, squarely and honestly considered.

After considerable further debate the following resolution was passed.

Voted—That the Exhibition of the New England Society be held in Lowell the present year, should satisfactory proposals be made for this purpose by the citizens of Lowell to the Executive Committee of the New England Society.

At a subsequent meeting of the Executive Committee it was

Voted—That the Secretary give public notice to all parties desirous of making proposals for the New England Fair for 1871, to send them to the Secretary on or before the seventh day of March next.

—A correspondent of the *Southern Farmer* says, that having tried many remedies for the destruction of vermin on fowls, he finds nothing so effective as a small piece of lard rubbed on the back and under each wing. He has cured hens in one day that were unable to stand up on account of the ravages of lice.

EXTRACTS AND REPLIES.

OIL MEAL—COTTON SEED.

I wish to know what you mean by oil meal? Also, what is decorticated cotton seek cake? What is the difference between cotton seed and linseed cake or meal, and which is the most profitable to feed to stock, either to make beef or as regards the value of the manure?

I have sent by the expressman two or three times for oil meal, but my cattle will not eat it very well, and some of them will not eat even an eighth part, mixed with corn meal. Perhaps I have not got the right kind. Any information in regard to it will be thankfully received. S. C.

South Scituate, Mass., Jan., 1871.

REMARKS.—Oil meal is made from flax-seed. The seed is ground into meal, then roasted over a slow fire, then powerfully pressed for its oil. This oil is "linseed oil," the oil commonly used by painters. Pressing the meal, leaves it in very hard cakes; these are oil cakes. Cotton seed cake is procured in a similar way. It is the seed of the cotton plant. "Decorticate" means literally to take off the bark. When first used, cotton seed was ground up with the bark or hull, and the meal thus prepared proved hurtful in some cases. At present the seed is hulled, or decorticated, and is hence less objectionable as feed for stock.

Formerly, in England, oil-cake was used as a manure, but it was relished so well, and proved so fattening to cattle, that it is now used for the latter purpose. Milk raisers use large quantities of it in producing that article for the market. The cake still retains considerable oil, and is considered very fattening, and also greatly enriches the manure. Some prefer linseed and others cotton-seed meal.

MILKING COWS TILL THEY CALVE.

What is the foundation for the general opinion that a cow must be hurt by milking up to time of calving? I was so taught, but this year I have had charge of one that I could not learn when she was going to calve; was told not until very late. When she got down to two quarts a day I tried to dry her off, but found she increased in milk very rapidly, and came to seven quarts before calving. I supposed the calf was spoiled, if not the cow. The calf was small but plump, and has grown well. The cow, a pure Alderney, gave over sixteen quarts a day, until the drought cut her short of feed; and has done as well as any cow in the barn, though she was not called any better than some of the others by those having charge of her before. I cannot see that it has hurt her any yet.

YOUNG FARMER.

East Greenwich, R. I., Feb., 1871.

REMARKS.—The general opinion that a cow should not be milked up to the time of calving is based on well-known physiological principles, and on the general experience of farmers. In the animal kingdom, one of the great objects of nature is the reproduction of the species. If this fact is overlooked in our ambition to make the cow a *mere* machine for the production of milk, we may "run" this part of the machinery to the injury of some other portion of the animal economy. In sections where cows are kept for the supply of cheese factories or city markets, the milk producing organs

may have been excited or developed to such a degree as to dwarf or weaken other organs. And the protest of nature against this disturbance of the balance of power or energy has appeared in the form of abortion,—a result that might have been anticipated from a knowledge of the facts.

Because you have as yet been unable to see any evidence of the bad effects of your single experiment, it will be unsafe to infer that the common opinion of farmers is erroneous. "The mills of the gods grind slow," and "because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set in them to do evil;" still it is equally true that these "mills" do "grind exceeding fine," and that violations of the laws of nature do eventually meet their just recompense. We have not the least doubt that your experiment would prove disastrous if tried on a herd for a series of years.

PIP IN HENS.

Please tell me the symptoms of pip in hens. I lose several every winter of a disease that I suppose to be the pip. They commence to make a noise that sounds as much like the pronunciation of that word as anything; then, after several weeks they falter and die. J. L. MORSE.

East Jay, Me., Jan. 19, 1871.

REMARKS.—Mr. Bement regards the pip as the result of a derangement of the mucous membrane of the alimentary canal generally, which by preventing breathing through the nose as healthy hens do, compels them to respire through the mouth. This often produces a dry horny scale on the tongue, which should not be removed unless loose. The disease is generally attributed to bad water taken by fowls for want of good. A teaspoonful of castor oil, or thereabout, according to age and strength of fowl, is recommended, with bits of onion or parsley mixed with potatoes, or dough; or two grains of black pepper, given in fresh butter. We have seen the statement that fowls that have access to running water are never thus troubled.

PRESERVING CIDER BY BOTTLING.

Will you, or some of your numerous readers, give the "modes" of bottling cider for domestic and medicinal purposes? State if bottled in extreme cold weather, it will be likely to burst the bottles, and how the corks can be secured, so as to be perfectly tight. SUBSCRIBER.

Northampton, Mass., Feb., 1871.

REMARKS.—Bottling cider is a matter with which we have had no experience. Some of the "neighbors" say, that if a pint of alcohol is added to a thirty gallon barrel of cider, when the fermentation is carried only so far that the excessive sweetness of the cider is removed, that it will remain sound and sparkling for many months. If bottled in that condition, it would probably remain good for years.

Another plan is to add three pounds of raisins and a pint of mustard seed to a barrel, when in the condition above mentioned. We have recently tasted some preserved in that way, which was very mild and excellent. We should think it ought to be bottled in a moderate temperature, and kept so afterwards.

Some of the cider bottled by person who make a business of it,—but who keep their own secrets as to how they do it,—is mild, and retains sufficient of its saccharine properties to render it very palatable. Such cider is always in demand and at remunerating prices.

CUTTING FEED FOR STOCK.

I think, notwithstanding all the theorizing which has taken place the past few years, it is still an open question whether it will pay to cut feed for stock, as an invariable rule. I acknowledge that I fail to see any good reason for cutting feed, that an animal will consume economically, thoroughly masticate and well digest. Our theorists, I know, tell us that the process of digestion is rendered less laborious by the operation; but this argument lacks weight we think, especially in the case of the cow or growing animal, who may truly be said to have no other business on hand than to eat and digest its food. We must not confound this with the process of steaming, which now seems to be coming quite into vogue, and of course which cannot be properly performed with uncut fodder.

How is it with the higher order of animals? Do we insist that our own food shall be thoroughly "hashed" for us previous to partaking of it? Is not the system as well satisfied with food unprepared in this way, leaving mastication to be performed by us in the act of eating? Perhaps this is a homely comparison; but does it not prove the truthfulness of our position? I know that bare assertions, unsupported by good proofs, usually have but little weight.

I was prompted to make these suggestions by reading the article in the FARMER of the 28th ult., on this subject, in which a correspondent says, "I fed thirty cows two winters on cut feed, and then gave it up, as I could see no reason why hay would go any farther cut than uncut." We have good reason to suppose that if this gentleman had found it to his profit, he would have continued to cut his hay; and it seems to me as though his practice was worth at least as much as our theorizing in this matter. But as stated at the outset, I look upon this as one of the undecided questions, and hope it will receive proper ventilation through the FARMER.

Salisbury, Conn., 1871. W. J. PETTEE.

AMOUNT OF LUMBER IN A LOG.

Before leaving my father's house in the Green Mountain State, I took much pleasure in reading the FARMER, after a hard day's work, and its occasional visits to this place are heartily welcomed. Since coming West I have been engaged in the lumber business, and will therefore attempt a reply to the inquiry in the FARMER of January 14, as to the amount of lumber in a log sixteen feet long and twenty-four inches in diameter. That depends in a great degree on the size of lumber manufactured from the log. We have to allow one-quarter of an inch waste for the width of saw every time it passes through the log. We would refer the inquirer to the table, "Logs reduced to Inch Board Measure," found in "Scribner's Ready Reckoner." The table shows that a log sixteen feet long, and twenty-four inches in diameter, contains, if sawed into inch boards, four hundred and four feet of lumber. The table has been computed from accurately drawn diagrams for each and every diameter of logs from twelve inches to forty-four, and the exact width of each board taken, after being squared

by taking off the wane edge, and the contents reckoned up for every log, so that it is mathematically certain that the true contents is there given.

T. C. DRIGGS.

Kansas City, Mo., Jan. 23, 1871.

A log sixteen feet long and two feet in diameter, will make but 50.21 cubic feet or 39.50 solid feet of lumber. J. O. D.

Fayette, Vt., Jan., 1871.

EPIZOOTIC APHTHA.

The Commission appointed by the English Government to investigate this disease, which was so destructive in England, in 1867 and 8, have published their Report in a quarto volume of some 400 pages. It gives a history of all the known facts connected with the disease, and contains a large number of colored plates representing the disease in its various stages, as seen on the lips, tongue, roof of the mouth, throat, œsophagus, the coats of the several stomachs, the small intestines, the large intestines, the bag and feet. The ulcerations or aphthous sores are chiefly confined to the mucous membranes lining the mouth and internal cavities, and are sometimes very extensive and severe, and accompanied with a fever of the typhus type.

There are also plates representing disease of the mucous membrane of the human intestines, in some forms of typhoid fever, much resembling this disease in cattle. The Report is an exhaustive treatise on the disease. The epidemic prevailing on this side of the Atlantic at the present time seems to be a milder form of the same disease. The volume, which I have had the privilege of seeing was sent by an English gentleman to his brother-in-law in this State. J. R.

Concord, Mass., Feb., 1871.

DR. NICHOLS' RECEIPT FOR RAISING CORN.

If you would inform me where I could procure Dr. Nichols' *receipt* for raising corn you would gratify me. E. F.

Rhode Island, 1871.

REMARKS.—We find among our notes of Dr. Nichols' Lecture at Manchester, recently, that he said "four cords of good manure, per acre, and a handful of fine bone and pure ashes in each hill would produce a good field of corn, other things being favorable."

Whether the above is what our correspondent alludes to or not, we cannot say.

HOUSING WHEELS.

I have a wagon that has been in use since 1830, and is a strong wagon now. All the repairs on the wood work that have been required are two spokes and one neb. The tire has been set twice on the hind wheels, and once on the fore ones. It has been housed when not in use. If any one has an older wagon I should like to hear of it.

HORN AIL.

For the horn ail, or when an animal breathes hard or runs at the nose, I take soft soap and fine salt mix them together and rub it on between the horns, once in two days, three times.

E. ROLLINS.

Groveland, Mass., Jan. 24, 1871.

SICK AND DYING GEESE.

Can any one tell me what to do for my geese? The first symptom I notice is an unsteadiness when on their legs, which continues two or three days, when they die. They eat well at the time, and have a warm, comfortable place. W.

Westbrook, Mass., Jan. 29, 1871.

REMARKS.—Will some of our poultry friends reply to the foregoing inquiry.

PICKLOCK.

What am I to understand by the term picklock, in the reports of the wool market? E. L. B.

East Calais, Vt., 1871.

REMARKS.—The best fleeces of the best lots; the "pick" of fleeces, not the pick of parts of fleeces, as the word pick-*lock* might be considered to imply.

AGRICULTURAL ITEMS.

—New York, which used to be the great wheat-growing State of the Union, now produces fourteen million bushels less than her people consume.

—Mr. Albert Berry of North Andover, has a horse affected with the cattle disease which is developing itself in the horse's feet, but not in the mouth.

—David Hinton, of Attleboro', Mass., had thirty-four chickens from four hens hatched this year previous to February 5.

—A citizen of West Fairlee, Vt., has surmounted his elegant new barn with a five hundred dollar model of a ship.

—The Southern States furnished their quota of pea-nuts last season as follows: Virginia, 400,000 bushels; Tennessee, 300,000 bushels, and Georgia and the Carolinas, from 153,000 to 2,000,000 bushels.

—Greenfield, Mass., has the reputation of doing as extensive a butter business as any town in New England, except St. Albans, Vt. She recently shipped to Boston in one day 38,500 pounds, and 400 pounds more arrived just a little too late to be sent in that lot.

—The strongest vegetable fibre known is the New Zealand flax. It has long, sword-like leaves, ten or twelve feet in length. It is used by the settlers for binding their sheaves, fastening their gates, tying up their horses, and in almost every possible way.

—Mr. C. G. Prindle, of Chittenden County, Vt., communicates to the *Country Gentleman* the results of experiments made to test the protection afforded to the ground by snow. A trial was made during the cold snap of January 23, 24, 25 and 26, when there was about four inches of snow on the ground, with old drifts by sides of fences, &c. The average temperature of the air above the surface of the ground was 13° below zero; four inches under the snow 19° above; and two feet under the drifts of 27° above.

THE FARMER'S FRIEND.—The Boston *Journal of Chemistry* is doing service to the farmers of New England by showing what special substances will act as fertilizers of crops, and about what they are worth when pure. We wish the *Journal* success in its beneficent efforts.

From the Boston Transcript.

THE SUGAR CAMP.

BY J. H. WOODS.

What time New England's hills of snow
Have felt the Southern breezes blow;

What time the sun begins to break
The bonds of ice-bound stream and lake;

When joyful earth is welcoming
To her embrace the early spring:

Then let us to the woodlands hie,
Ere sunrise gild the eastern sky;

For where yon hill-side slopes to meet
The river winding at its feet,

A thousand lofty maples yield
The sweets within their cells concealed,

And, as the bees are lured by flowers,
We haste to make the treasure ours.

Warm, sunny days, with nights of frost,
Are those we now desire the most.

Ah! then, at morn, what rare delight
To walk the fields that, yester-night,

With crusted snow were covered o'er,
Solid and white as a marble floor!

Such is the royal road by which,
O'er drift-screened rock and fence and ditch,

We to our cheerful task repair,
Beneath the maples brown and bare.

Now with our twirling bits we tap
The trees, and catch the flowing sap,—

More grateful to the taste than wine,—
In cedar pails or troughs of pine.

Then some sequestered nook is sought.
Where bark and branches interwrought,

Soon form the "sugar camp;" and near
At hand two forked stakes appear,

With tranverse pole above a row
Of huge black boilers ranged below.

Here, when the evening shades descend.
Groups of young men and maidens tend

The blazing fires and round about,
In shifting circles, laugh and shout.

See how the vapors upward curl,
And their gray phantom shapes unfurl!

See the hot syrup foam and seethe,
As the fierce flames are stirred beneath!

Some from long ladles love to sip
The nectared sweetness with their lip;

While others, whom experience
Warns when the process should commence,

Pour out the syrup thick and dark,
In moulds of tin or birchen bark,

And view the cooling crystals meet
In lumps of sugar, crisp and sweet.

O, ye by heavy cares weighed down,
Mid dust and uproar of the town,

Lay for a time your burdens by,
When Spring with blithesome step draws nigh,

And to the woodlands haste,
To breathe a purer air, and taste

The sweets that Nature's chemists there
With subtle alchemy prepare.

For the New England Farmer.

WINDOW GARDENING FOR FEBRUARY.

The last and shortest of the winter months has now arrived, and we must stimulate our plants at least twice a week to increase their growth and beauty. They have had their season of rest; have concentrated their forces, and now with proper care are ready to bud and blossom and repay their cultivator for the many hours passed in their service.

A successful window garden cannot be enjoyed without close attention. The plants cannot be watered and cared for at one time, and then neglected for a week; but they demand a daily amount of time to be expended upon them. Every morning when the housework is finished, their wants must be attended to, and be sure to give them warm water. Do not let the ground become caked or dry, but stir it at least twice a week, when stimulants are added. We have given so many directions for these stimulants that it would seem needless to repeat them; but house plants will not flourish without their aid, unless the soil has been prepared by a florist and made very rich.

All parasites must be kept off. We find the "Grafton Fertilizer," a powder made from the gold bearing rocks of New Hampshire, a great preventive against their inroads. We have scattered it freely over all our tender plants just after they had been thoroughly sprinkled, and not an *aphis* or a red spider dares show itself. A wash made of aloes and saleratus, one ounce each to two quarts of warm water, is said to kill all intruders. The branches of the plants are to be dipped into the solution, and rinsed up and down in it; then dip the whole plant into pure warm water. One application of this remedy will often be enough; but if the parasites appear, try it again. The aloes can be procured at any country store. Pots and saucers must be washed, and general attention paid to the neatness of the stand of plants.

Ivies and all climbing plants will grow rapidly during this month; but take care not to stimulate their growth *too* much. Long, lanky stems, with leaves so far apart that they seem frightened at each other, are not very ornamental or graceful. The German ivy is too apt to string itself out, and the Madeira vine has a tendency that way.

The Mexican *Cobœa Scandens* is an attractive vine; it is quite an old plant, but we all know that it is not every new thing which is the most beautiful or the most desirable. Its cultivation has increased of late, on account of its rapid growth and its handsome bell-shaped flowers. It is a tender perennial, but is easily propagated from cuttings; and if the seeds are sown in this month, the plant will bloom the next autumn and winter. The seeds are large and flat, and should be planted edgewise. The flowers are full two inches

long, and will be of a green color at first, but change to a rich bluish purple, and bloom for a week or even more. The calyx is large, and the long stamens, seemingly growing at one side of it, give to the flower a grace and beauty all its own. The plant was named for a Spanish priest, Cobo.

Stock gilliflowers, and the old fashioned wall flowers, are great favorites of ours. Their brilliant flowers and sweet perfume make them in every way desirable. We always stow them away in a warm cellar until this month, then bring them up, trim off their awkward stalks, give them good plant food, sun-light and air, and by March they are the admiration of all. They will bear liquid manure twice a week.

My *Lantanas* are commencing to grow rapidly, and the buds are forming all over the fresh shoots. These plants thrive best in a sandy soil, and should be sparingly watered until late in January. They delight in fresh air, and their brilliant, changing colors,—yellow and orange, white, yellow and crimson, &c., sometimes to be seen on the same plant—make them always interesting, but their perfume does not charm us,—is rather disagreeable.

The *Azalia* is a favorite house plant. Its showy flowers covering its branches, make it very attractive. It flourishes best in a soil of leaf mould, sand and loam, well mixed,—two parts of loam, &c., to one part of sand. The roots are often injured by too frequent waterings before the buds are formed; but after their appearance, care should be taken not to let the soil become dry. During February and March, the Azalia is an object of great beauty.

Double Azalias have been produced, and their flowers are very handsome; but we have a preference for the old-fashioned single pink, and the pure, spotless white species.

The *Abutilon* will bloom this month, if it has plenty of air and water; but if the temperature is hot and dry, its lovely flower bells will droop and blast. It requires a sandy loam to blow in perfection, and when it has proper care, soil and temperature, it is as beautiful a parlor tree as one can desire to possess.

All roses, heliotropes and geraniums which were stored in the cellar, can now be re-potted, trimmed, and brought to light and air. If attended to in this month, they will be in full bloom by the first of April, or perhaps sooner. Roses must have a rich soil to blossom well, and old plants should be pruned with an unsparing hand. Cut close and plentifully, if you desire fine roses. The new method of growing them is to prune very near the ground, and to depend upon new, fresh shoots from the roots, for buds and flowers.

Many plants will require fresh soil at this season. We have had a general re-potting of our pets, and are sure that they will be greatly improved by it. Their tender, fibrous roots become interlaced and entwined around the surface of the pot, and desire a larger space in which to spread themselves. Run a broad-bladed knife around the inner edge of the pot, turn it over on your hand, rap on the bottom of it; the ball of earth will slip out into your hand, and you can judge if it needs more room. You can also see if angle worms or the tiny white mites are destroying the vitality of the plants. If you detect the angle worms, pull them out with your fingers,—don't shrink from the touch of such a harmless bit of life. If the minute wrigglers are there, take out all the soil you can without disturbing the roots, and replace it with fresh earth, of which, if you are a good florist, you will have a bountiful supply stored away in the cellar for this very purpose, and in which to plant seeds, so as to obtain an early supply of flowers and vegetables. This fresh soil must be baked and added to the pots just a little bit warm. The soil that is infested with white worms can then be baked and used again. We always bake the earth we use for our plants or seed planting.

Cacti are indispensable in every window garden, on account of their gorgeous flowers. Uncouth, snaky, prickly-stemmed though they are, resisting all efforts to train them into any shapeliness or comeliness of forms, and filling one's fingers with their sharp needles, still we plead for them. They can be put away on a shelf and not watered until this month commences, and then place them where the sun's hottest rays will fall upon them, and water plentifully. Soon their buds will appear, and in a few weeks they will rejoice you with the splendor of their huge scarlet chalices—tasseled with shaded violet tassels of flossiest silk, and at the bottom of their brilliant cups are seen rare shades of apple-green. The contrast of their colors are both rich and rare. No plant of delicate, graceful foliage can boast such coloring as the homely Cactus plant exhibits in its flowers. A single blossom lights up a whole room—is a picture in itself!

The *Crab Cactus* possesses most curiously shaped flowers, yet so brilliantly colored, and every tip of its peculiar leaves displays the

"Rare, consummate flower."

Cactus Flagelliformis and *Cactus Mallisoni* are very desirable for hanging baskets, or the pot in which they grow may be suspended by cords from the casement, and their snaky-shaped branches will be covered with bright waxy pink or crimson flowers.

We found a Cactus growing wild among the green fields of the Rocky Mountains last summer, and carried it safely home. It has not grown any, but as it still lives, we have hopes of its future. We brought two specimens, but the rarest, a turban-shaped variety, became too dry to be restored to life. Immense prickly pears, which belong to the species of

Cacti, are grown in the gardens at San Francisco and Oakland, and we were told that their fruit was eatable. The leaves were perfectly huge; nearly a foot long, and at least six or seven inches broad. We could imagine the sufferings of our soldiers in Mexico when forced to march through such chapparals.

S. O. J.

MUCK AS AN ABSORBENT.

The Secretary of the East Turner, Me., Farmers' Club reports to the *Maine Farmer* the substance of a late talk on manures:—

C. Gilbert said that with many farmers one half of the manure is lost from lack of attention, and much of that which is first saved is lost by neglect and in the application. When allowed to ferment before applied much loss is sustained unless some ingredient is composted with it.

J. D. Gilbert said that his cattle were stabled nights in the summer, and littered with a sufficient quantity of partially dried muck to absorb and hold all the liquid. His hogs are kept in the cellar, and are supplied with liberal quantities of muck or loam which they work over, and soon convert into valuable manure. Enough absorbing material should be used to keep the apartment dry. Fowls if properly attended to will furnish a large amount of the most valuable fertilizing material. These droppings are very strong, and should be mixed with five or six times their bulk of pulverized muck, and allowed to slightly heat, when the heap should be worked over. A quart of this compost is sufficient for a hill of corn. He has realized astonishing results from its use. Ten head of cattle, with horse, hogs, hens, turkeys, &c., should make an ox-cart load of manure every two days on an average the year round.

L. Gilbert makes large quantities of valuable compost from the house slops, and from the deposits of the privy. An excavation is made in some convenient place near the house, and filled with muck and loam—muck is preferable—and all the suds and slops from the house are conducted on it, and allowed to filter through it, or dry up from the surface, the muck retaining the manurial properties of the slops, and allowing the pure water to pass away. Whenever any offensive odor from the surface is discovered, as will frequently be the case in hot weather, the compost is forked over, and all odors absorbed. Muck is one of the most powerful deodorizers in existence—dry earth, of which so much is said, is not to be compared with it. The privy is supplied with a liberal share of this deodorizing material from time to time, when needed, and a large pile of compost is realized therefrom. These preparations are the most valuable manures for the corn-hill of anything made on the farm. They never fail to produce the most satisfactory results.

A. G. Day had composted the solid droppings of his stock by forking over the heaps at the barn and mixing an equal quantity of pulverized muck, allowing the mass to remain under cover till the next fall. Comparative trials repeatedly made had proved this mixture more valuable, bulk for bulk, than the manure before being mixed. This testimony was corroborated by the experience of many other members of the club who had repeatedly tested the value of the same mixture.

Z. A. Gilbert believed the farmer who spends his labor to compost the solid manure while the liquid is running to waste, is not using his means to the best advantage. After this has been done, then the farmer may compost his solids with muck and make the operation pay largely.

S. Townsend said that muck was much lighter to handle than loam, and its absorbing power was much greater. In the absence of a barn cellar, he practiced putting muck or loam under his tie-up floor, and thus saves a portion of the urine.

THE DEATH OF A BUFFALO.

Whether it be that age causes animals to become reckless, or that their lengthened sojourn in the world has familiarized them with their strength, and imparted to them a knowledge of their powers of destruction, or that the lassitude resulting from their infirmities causes their tempers to become soured, I know not. But when the old bull buffalo has separated himself from the herd, and retired, as it were, into private life, he becomes most pugnacious, and fearlessly attacks all intruders. Fortunately his activity has deserted him at this soured portion of his existence, and but little exertion is necessary to avoid his onslaught. I once saw one of these hero-veterans die a natural death, an unusual occurrence, for their enemies are numerous, and always ready to attack them when in that weak state that precedes dissolution. Well, my hero was sitting on a mound, a setting fiery sun slowly dipped the western bounds of the landscape behind him, and made his huge outline loom doubly grand. Food had been scarce with me, and consequently I made a more than usually careful stalk to get within range; the game's position was such that I almost doubted the possibility of success, yet closer and closer, without causing any visible alarm, I advanced. At length, when I had decided that the range did not require lessening, I felt convinced that I had been seen, for the head and eyes were turned toward me; but no angry shake of the horns, paw of the ground or flash of the eye evinced hostility, and, moreover, the figure appeared to lessen with each respiration; and an air of incapacity for further exertion was indelibly stamped upon the veteran monarch of the prairie. My gun was for the moment forgotten, and I

gazed with wonder, and possibly with sorrow, at the apparent approach of death. By degrees the veteran's forelegs were placed farther and farther apart; rapidly diminishing strength instinctively compelled this method of supporting the towering figure; at length the body swayed, and, with a lurch like a foundering ship, rolled on its side, and life departed from the carcass at the same moment. Up to the termination of the career of the noble brute he had remained upon his limbs, defying decay with his last breath. With sorrow I looked upon the body, regretted that life had fled; although, at the same time, I had been drawn to the spot with the intention of executing the office in which I had been fore-stalled. Befitting was such a death to the greatest hero, succumbing only when nature refused to grant further support, yielding up the life and strength he had gloried in without a sigh of regret.—*All Round the World, by Capt. Parker Gilmore.*

ADVICE TO YOUNG BREEDERS.

The high prices occasionally realized by breeders of fine stock for a remarkable specimen, and the fine display often made at our annual fairs by careful and intelligent breeders, have the effect each year of inducing a new crop of novices to embark in the business. They purchase a few choice animals, at good round prices, being fully impressed with the importance of breeding only from the best, and with confidence expect to take rank at once among the most famous breeders of live-stock.

But, alas for human hopes! the finely-bred animals that for generations have been accustomed to the care and attention of a *master* at the business, soon show signs of the change of condition, and the enthusiastic but ignorant proprietor becomes ashamed of his purchase. Or, if they are fortunate enough to escape evil consequences themselves by the change of ownership, their progeny, from lack of proper discrimination in coupling, fall far below the sanguine anticipations of the owner. The novice is disgusted. He thinks he has been swindled—that inferior stock has been palmed off on him (and perhaps it is true), or that this thing of fine-stock raising is all a humbug. He gives up the business, and his place is taken by another with like experiences and like results.

There is one lesson which, if well learned by the public generally, would prevent many of these disastrous failures, and it is simply this: If you have finely-bred stock, you must take care of it if you expect to make it profitable. Animals that have always had the best of care, whose progenitors for many generations have been carefully tended by skilful breeders and liberal feeders, will not endure the neglect and starvation to which our "scrub stock" have become inured. Take the finest cow from the herd of Sheldon, King, or Spears, and subject her to the rough treatment common among our Western farmers for one year, and she would present but the ghost of her former self.

From various causes there is a constant tendency in all breeds of domestic animals to deteriorate; and how to counteract this tendency by proper care, judicious selection, and discriminate crossings, so that there shall be improvement instead of retrogression, must be the constant aim of him who would hope to succeed. In this matter of selection and crossing there is room for the exercise of the most enlightened judgment.

Those whose ambition or inclination would lead them to embark in this business should *start* right. Acquire first a knowledge of the general principles which underlie the science of breeding, and then study, critically, the history, habits, form, and disposition of the species of animals you design to breed. Have a plan—a well-defined ideal—and then, "hew to the line;" the very variability of all our domestic animals will be, in your skilful hands, the means of success. Go slow, and don't expect to reach the goal of your ambition at the first effort. If you have never read "Darwin's Variations of Animals and Plants under Domestication," buy, borrow or beg the book at once, and read it. It will be worth years of experience to you. Another book, invaluable for its incidental discussion of general principles, aside from its specialty, is "Harris on the Pig." The careful study of a few such books will save you many disappointments, and greatly assist you in acquiring that knowledge of the subject without which you cannot hope to succeed.

It should not be inferred that stock-raisers and farmers generally will not find it profitable to buy improved animals to cross upon the common stock of the country; on the contrary, it is chiefly owing to the fact that the product of the skilful breeder is constantly being sent out, that the common stock of our land is as good as we now find it; but the aim of this article is to impress upon those who design to make stock-breeding a special pursuit—

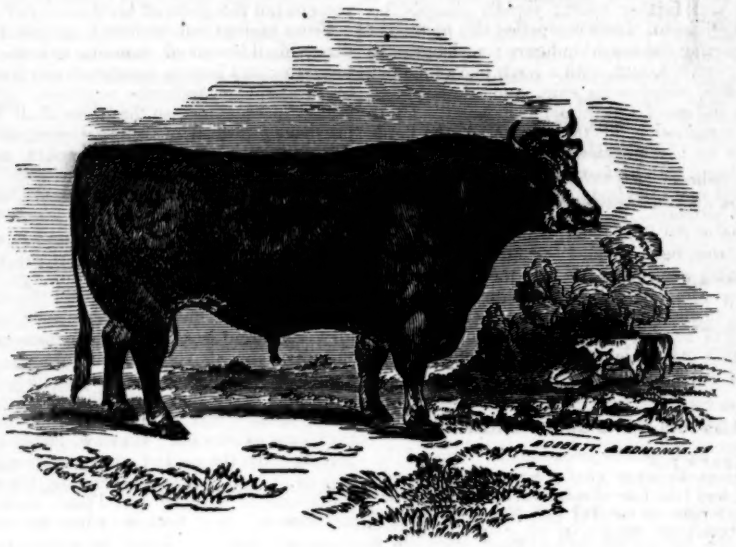
1st. That it is time and money wasted to buy a large lot of fine stock at fancy prices without having any previous knowledge of the business:

2nd. That the breeder should have a well-defined ideal, and labor patiently and perseveringly to accomplish his object:

3d. That a thorough knowledge of the general principles of breeding is essential to success:

4th. That care and attention must be given without stint, and that all kinds of stock usually do better if the eye of the owner is upon them every day; and

5th. That no man ever became eminent in any profession or business without patient labor and earnest application.—*National Live Stock Journal.*



HEREFORD BULL.

This breed of cattle take their name from the country in which they originated, though little is positively known as to their origin. More than a hundred and fifty years ago they were popular in England as beef cattle. Mr. Sanford Howard says that, in 1799, a Hereford ox girthing 12 feet and 4 inches and 7 feet high, was exhibited at Smithfield, and one girthing 10 feet, 4 inches, and 8 feet 11 inches long was sold for a hundred guineas. In speaking of the aptitude of the Herefords to fatten, and of the great amount of flesh they give in proportion to the bone and offal, Mr. Howard says, "on a well fed Hereford the choice or top pieces—back, loin and rumps—are of extraordinary thickness and weight as compared with other parts of the carcass. The fat and lean are so combined as to render the beef beautifully marbled." We have heard this opinion confirmed by our Boston butchers.

Their value as working oxen is also generally admitted. Mr. Howard says they have nearly the activity of the Devons, with much greater size than the average, and corresponding strength.

Many of the descriptions that we have seen of the Herefords admit their inferiority as milkers. In this respect Mr. Howard believes they have been misrepresented. He says, "according to the testimony of persons who have had the best opportunity for comparison, keeping both Short-horns and Herefords, the latter give quite as much milk as the former in proportion to the food consumed, and generally milk of richer quality."

Mr. Allen, in speaking of the Hereford cattle bred by F. M. Stone, Guelph, Canada, says "some of the cows proved excellent milkers." He also says, that, from occasional marks among our native cattle, it is evident that Herefords were among the early importations to this country.

ABORTION IN COWS.—Dr. McClure furnished the *Practical Farrier* the following as a preventive of abortion:—"Powdered sulphate of iron, two drachms: powdered gentian root, half an ounce; mix and make one dose. This will be a powerful tonic, adding richness to the blood, strengthening the mucous surfaces and imparting health and strength to the whole system, thereby enabling the animal to carry her young to its full time. Good and generous feeding is also a preventive by itself, but better in conjunction with the above powder."

ON FEEDING STOCK.

THE NEW ENGLAND FARMER is published to accomplish two prime objects. First to obtain, through industry and economy, a comfortable subsistence for those employed upon it; and, secondly, to impart to our fellow-men sound and valuable information through its colums, in which correspondents and editors become teachers in turn, and thus good seed is sown broadcast over the land. It is in this light that we receive the queries and criticisms of our correspondent "*Maplewood*," and find pleasure and instruction in being somewhat more explicit in speaking of the topics which he introduces, than is usual in the column of Extracts and Replies. He says:—

I am tempted to offer a few remarks relating to some of the subjects in the last number of the FARMER, and,

1. As to what you say in regard to cutting fodder, I still have doubts. I fed thirty cows for two winters on cut feed and then gave it up, and as yet I can see no reason why ten or twenty pounds of hay will go any farther when cut, than before. The meal or shorts added may as well be fed dry, or what is perhaps better, mixed with water till thin enough to be drank.

REPLY.—Can our correspondent see any reason why ten or twenty bushels of corn will go any farther, if ground into meal, than if fed whole? If he will examine the droppings of the cattle that ate the whole corn, the reason will be perfectly obvious. So if he would magnify the droppings of cattle fed on *uncut* hay, he would probably find similar reasons. But he may rejoin, that it is *natural* for our stock to feed on long hay. But is it so? Our cattle are not in a natural position. In a state of nature they roam at large, where the climate is sufficiently mild to furnish them food spontaneously throughout the year, and yield it to them in a fresh, juicy and tender condition. We have taken them from their native haunts, tied them by the neck, and housed them for a considerable portion of the year. They must now be fed and otherwise treated as exotics; and in doing this every economical method should be resorted to in order to make their food as near that which they enjoyed in a state of nature as we can; that is, as near young, short sweet grass, or other herbage. Cattle in pastures nearly always reject the old, long grasses, and graze that less than half an inch long in preference. Much of the hay fed to winter stock is little better—principally by standing too long before it is harvested, and then by over-making—than that rejected by cattle in the pastures. In this view of the case alone, it would seem to be a matter of economy to cut long fodder. But we have never advocated the practice of cutting fodder and feeding it to the stock *in a dry state*. It may be economical to do so; but we have not tested it.

Every Effort Wastes, or Reduces.

The first fact to which we wish to call attention is, that "every effort of mind, every contraction of muscle, every act of secretion involves the combustion of a certain quantity of food and a loss to the animal economy." A man, making his dinner on dry corn, would become exhausted by the efforts at mastication, long before he had satisfied the demands of his appetite, even if he had plenty of sound teeth. If the corn were boiled, the effort would be less; if ground into meal, still less.

But this is not all the advantage of boiling and grinding. Another process must be considered,—that of digestion. It is not the *amount* eaten that sustains the animal economy, so much as it is the amount which is *digested* and becomes available to be used as substances of support.

The roots of plants do not feed upon *coarse* materials; their organization is so delicate that they require it in the form of water. Animals commence the work of reducing their food with their teeth, but the organs of the body whose duty it is to prepare the food to pass into the form of chyle and then to blood, could not take it in the form in which it leaves the teeth. Mastication by the teeth reduces the food in some degree, and then it is immediately moistened by the saliva, just as we would have you moisten the hay with water which has been cut by the machine.

Importance of perfect Digestion.

But this is not all. The organs referred to could not receive it even in this form. It has still another process to pass through before they can avail themselves of it,—and that is the process of *digestion*. In order to carry the food still farther towards a condition in which it can be converted into good blood, it passes into the stomach, and is there still further reduced by the action of the gastric juices.

Here it is reduced to a liquid, and "the power possessed by liquids and gases of penetrating and passing through membranes, is of the highest physiological importance; indeed it is one of the primary conditions of life. The little cell, the starting point of organization, is a closed bag—without an aperture. All its nourishment must therefore pass through this membranous wall. So also with the perfect animal body. Currents and tides of juices are constantly setting this way and that, through the membranous sides of vessels. The *liquified food is destined to pass into the blood*, but there is no open door or passage by which it can get there, and so it enters the circulating vessels by striking at once through their sides."

The result, then, is the same in animals and vegetables. In reducing manures to fine condition, before applying them to the soil, they pass through one of the processes of digestion, or preparation, for the plant; then, *moistened* in the soil, they pass through another, and if *heated*, would go through a third.

All Effort Expends Food.

We have said above, that all effort by the animal is sustained by food; it follows, therefore, that all effort *expends* food. Why do we allow the fattening ox to rest? Certainly, so that he shall not expend his food on effort of any kind, but divert all the nutritive properties of the food to fat and flesh. If an ox chews thirty or forty pounds of dry hay in twenty-four hours, there must be a considerable effort in it, and whatever is saved by cutting that hay is clear gain, after deducting the cost of cutting.

The object of mastication of food is to comminute it, to break down its structure, and to render it more easily acted upon by the gastric juice, thus enabling the animal to appropriate its nutriment. Now, the more finely divided the food is, when subjected to the gastric juice, the more easily and rapidly it is digested. For when finely divided it presents many hundred times more surface to the action of the digesting fluid.

If fresh grass is fed to cattle, or any other succulent food, "the fibre is easily broken and reduced to a pulpy mass; but not so with dry, woody fibre, which must be broken and comminuted before the food contained in it is accessible for animal nutrition. This the animal seldom does, and especially the non-ruminating; therefore, it becomes highly necessary that we should assist the animal as much as possible, in extracting the nutriment contained in food." All food has to be ground up before it can be assimilated, and pass into the circulation of the animal; if we do not do it, the animal must prepare it himself. The argument is, that we can do it by the aid of machinery cheaper than he can.

There are other points worthy of consideration. The following assertion will not be controverted, probably, by any one: "A small portion of food, which an animal can at once eat, digest, and make into its own bones, muscle, and fat, is worth more than a large quantity of some kind which it can only eat with difficulty and digest slowly."

Cells containing Nutriment must be Broken.

Much of the nutriment afforded to animals in what they eat, is contained in little sacks or globules. These globules vary in size, but are always very small. The globules constituting meal, flour and starch, we are informed by chemists, are incapable of affording any nourishment as animal food *until they are broken*. "No mechanical method of breaking or grinding is more than partially efficient. The most efficient means are by steaming. The fragments of the shells of these globules are not nutritive, but are indispensable to digestion, either from their distending the stomach, or from some other cause not understood. The economical preparation of all food containing globules or fecula, that is, starch or the green matter of plants, consists in perfectly breaking the shells of the globules and rendering the gummy matter contained in them soluble, and digestible, while the fragments of the shells are at the same time rendered more bulky, so as the more readily to fill the stomach.

Another Reason for Cutting Fodder.

It is said by high authority that hay cut fine affords much more nutriment than hay when fed uncut. The philosophy of this is, that hay contains woody fiber, which, notwithstanding its hardness, if only made soluble, is identical with starch; and as nutritious and fat-forming. Hence when hay is cut fine it is better masticated, absorbs more saliva, and of course it becomes more soluble in the animal's stomach; soaking the hay for 24 hours, wetting with scalding water or steaming it, will make it still more soluble.

Our constant practice in feeding 30 head of stock, is to cut all the fodder, hay, straw and corn fodder, add whatever grain is used in the form of meal, sprinkle, throw into a heap and let it remain 24 hours before feeding it

out. This is the course we commend to others. Scalding or steaming would undoubtedly be more efficacious, but the soaking mode is easy, cheap, and requires no extraordinary skill. The first outlay for steaming is somewhat expensive, and fuel is another and constant expense. On a farm where 30 or 40 head is kept, a horse-power would prove economical in other work besides that of cutting fodder; and a good one would last a lifetime. When the fodder is cut, and water and meal at hand, the labor of mixing is rapid and easy.

Such are some of the reasons why we have commended the practice of cutting fodder for stock. But if we had not these reasons to give, an every day experience in doing so, for many years, would satisfy us that it is decidedly an economical operation.

Some other interesting questions of "*Maplewood*," will be referred to at another time.

AGRICULTURAL SOCIETIES.

WINDSOR COUNTY, VT.—*President*, Frederick Billings; *Secretary* Henry Boynton, Woodstock. The location of annual fair is fixed at Woodstock for another period of five years.

EAST YARMOUTH, ME., CLUB.—*Pres.*, G. W. Sweetzer; *Sec.*, Alfred King.

MERRIMAC CO., N. H.—*Pres.*, Col. David M. Clough; *Sec., and Treas.*, J. E. Lang, Concord,

MEREDITH, N. H., CLUB.—*Pres.*, J. S. Neal; *Sec.*, J. F. Wadleigh.

HAMPDEN, MASS.,—*Pres.*, Phineas Stedman; *Sec.*, J. N. Bagg, West Springfield.

WEST HAMDEN, ME., CLUB.—*Pres.*, Richard Patten; *Sec.*, J. C. York.

WEBSTER, ME., CLUB.—*Pres.*, W. T. Kirby; *Sec.*, J. W. Maxwell.

NORTH KENNEBEC SOCIETY, ME.—George E. Shores; *Sec.*, D. R. Wing, Waterville.

CENTRAL PISCATAQUIS, ME.,—*Pres.*, A. M. Robinson; *Sec.*, Lyman Lee,

WEST WINTERPORT, ME., CLUB.—*Pres.*, W. Thompson; *Sec.*, John York.

EASTERN KENNEBEC SOCIETY, ME.,—*Pres.*, A. H. Abbott; *Sec.*, H. Colburn, Windsor.

SHERMAN, ME., CLUB.—*Pres.*, J. W. Ambrose; *Sec.*, John Burnham.

NORTH KENNEBEC, EASTERN DIVISION, ME.—*Pres.*, W. E. Drummond; *Sec.*, H. L. Crosby.

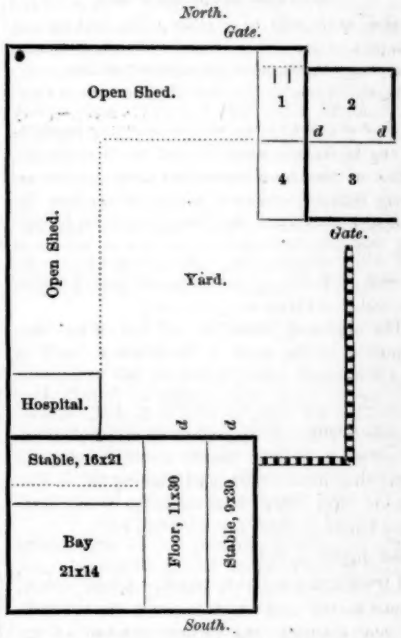
KNOX, ME., SOCIETY.—*Pres.*, T. Williams; *Sec.*, John W. Fogler.

FRAUDS ON WOOL GROWERS.—As sparks fly upward, wool growers seem of late doomed to trouble, perhaps on the principle of kicks when going down hill. The pelt dodge had hardly been played, when we are treated to a game under the guise of "calf and cow hair goods!" A Mr. Dobson, of Philadelphia, writes to the *Practical Farmer* that by the fraudulent representations of the importers, woolen goods have been introduced into this country under the name of hair and vegetable fibre, to the value of $2,200,000 in gold, and cheating the government out of some two million dollars of revenue. The attention of Secretary Boutwell has been called to the subject.

FARM AND BARN OF JARVIS PRATT, READING, Vt.

During our visit to Vermont last fall, we called on Jarvis Pratt, who owns a farm partly in Reading and partly in Windsor, on the north side of Mill Brook, and perhaps half a mile from the valley, up a very steep ascent. This road, which terminates in his door-yard, is always kept in good repair, and as we tug up the hill the frequent bars which cross the road-bed remind us of going up a ladder.

But having made the ascent, we pause to look at the valley we have left below, and, through an opening in the opposite wall of the valley, to take a peep at the village of Felchville and the mountains in the distance beyond. Before we go into the house we will take a look at the barn, where we see the owner and his son storing away a load of corn. Of the barn, sheds, stable and yard we took the following sketch:



EXPLANATION.—The barn is 42 by 30 feet; posts 14 feet; bay sunk into the basement or cellar six feet. The western shed, including the Hospital, extends north from the barn 66 feet; and the north shed, including stable for three horses, (1) is 44 feet long. The posts of the sheds are 13 feet. The open part is 7 feet high, leaving roomy scaffolds for hay, &c. The east end of north shed connects with a building 16 by 24, which is used as a carriage-house (2); and as an open shed, (3) for wagons and tools. The large dotted lines indicate a very heavy wall, quite high on the south side, where the land falls off suddenly. On the side of this wall next to the yard, and forming a part of it, is a

broad walk of flat stones, elevated above the surface of the yard, on which the barn can be reached dry shod, when the yard is muddy. There is also access to the barn, under cover, through carriage-house, horse-stable, sheds and hospital. As there is only a driveway unsheltered between the carriage-house and the wood-shed attached to the dwelling, the walk from the kitchen to the cow stable may be made under cover, with the exception of some twenty feet. No. 4 is the hen-house.

These buildings were put into their present form some ten years ago; previous to which the cattle were stabled in the cellar. From his long experience with a basement stable—though his was a very open one—Mr. Pratt is satisfied that stock does better entirely above ground, and little use is now made of the cellar except for keeping manure. A part of the western open shed is divided by movable feeding racks into apartments, as desired, for sheep and lambs.

The next thing that we notice is the neatness of everything about the premises,—every stick in the wood pile, every hoe in the tool-shed, being "ranked and sized" with military precision. This order and system can hardly be ascribed to an ambition on the part of the owner to excite the admiration of the passer-by, for none are expected on this mountain shelf; nor to the fact that he runs a small farm, for his fences include over 170 acres,—every corner of which, as well as every pile of stones in his fields, some of which are rods in circumference, manifest the same all-pervading method. Less orderly farmers sometimes justify the contrast between their own and Mr. Pratt's premises, by saying they cannot afford to spend time as he does in "fussing." Perhaps not. But as "the proof of the pudding is in eating," let us inquire what has been the result of his system of farming.

We remember when, at the age of less than eighteen, by the death of his father, a family of five individuals looked to him for care and advice. His mother was in feeble health, and from the long sickness of his father all were in destitute circumstances. With the assistance of friends, he obtained places in other families for all of them, and indentured himself with a neighboring farmer during the three years of his minority, for one hundred dollars in addition to clothing, &c.

The family thus provided for, he subsequently worked by the month or season, for several years, when, having saved a few hundred dollars, he bargained for the farm which included the buildings he now occupies, and perhaps one-half of the land he now owns. We remember, too, that when one of the neighbors heard of the purchase, he exclaimed, "What, that little Jarvis Pratt bought the Capt. Stearns farm!"—a remark that we feel justified in repeating, only as it may afford encouragement to other young men who may be regarded by their seniors as too "little" to buy a farm, because they may have been known ever since they were small!

Having bought his farm he succeeded not only in slicking up his premises but in meeting his payments, and as his three boys and one daughter became able to assist their parents, permanent improvements were commenced by which the whole farm is walled,—one hundred rods having been built in a single year; an orchard of 150 trees of choice fruit has been set out, a statement in relation to which was published in the FARMER (Monthly, 1869, page 229,) by which it appeared that its income for 1868 was $177; and recently something has been done in the line of

Underdraining.

Near his buildings there was a piece of land that was very wet and very rough; an eyesore to the owner and a laughing stock, or something worse, to the boys who had to mow it every year. Some hurricane had probably prostrated by the roots a forest of large trees that once grew on this land, for its surface was a succession of cradle-holes and hillocks. It was not exactly a swamp, but was so wet that little could be done with it by way of cultivation, especially in the spring. Some seventy-five rods of stone drain have let in the plough and harrow and now this is one of the smoothest, most beautiful and most productive fields on the farm.

He digs his ditches two feet wide and two feet deep and lays the stone so as to form a water course four inches wide by six inches deep, leaving the sides somewhat loose to admit water, and covers with flat stones, and then with soil. He has stone remarkably well adapted to this purpose; being granite in thin strata, or what we suppose is called gneiss, and is about equal to brick for ditch making. Mr. Pratt is very much pleased with his experiment in underdraining, which has been done mostly at odd jobs. He raised this year 300 baskets of corn, of a variety which he calls the sheep-tooth, a cross, as we understood, of a small early and a larger variety, of which he preserves the desired size of ears by careful selection. He is very particular in his selection of tools, especially of the plough, the proper form of which he regards of great importance.

EXTRACTS AND REPLIES.

OIL MEAL FOR HORSES.

Will you give your opinion about using oil meal for fattening a spirited driving horse, who will not easily gain flesh on corn meal? Will a horse fattened with it hold his flesh as well as if fed with corn or corn meal? Have heard it remarked that horses would easily gain with this fed to them, but if allowed to shrink could not be easily brought back again. Does it act as an astringent or is it laxative? SUBSCRIBER.

Bradford, Mass., Dec., 1870.

REMARKS.—We have had no experience in feeding oil meal to horses. We find the following in one of our exchanges:—

Many good horses devour large quantities of grain and hay, and still continue thin and poor; the food eaten is not properly assimilated. If the usual feed has been unground grain and hay, nothing but a change will affect any desirable alteration in the appearance of the animal. In case oil meal

cannot be obtained readily, mingle a bushel of flaxseed with a bushel of barley, one of oats and another of Indian corn, and let it be ground into fine meal. This will be a fair proportion for all his feed. Or the meal, or the barley, oats and corn, in equal quantities, may first be procured, and one-fourth part of oil cake mingled with it when the meal is sprinkled on cut feed.

Feed two or three quarts of the mixture two or three times daily, mingled with a peck of cut hay and straw. If the horse will eat that greedily, let the quantity be gradually increased until he will eat four or six quarts at every feeding three times a day. But avoid the practice of allowing a horse to stand at a rack well filled with hay. In order to fatten a horse that has run down in flesh, the groom should be very particular to feed the animal no more than he will eat up clean and lick his manger for more.

We especially urge the attention of every stock feeder to the advice contained in the two last paragraphs. No errors in feeding is more common than those of giving too large quantities at once, and of adding new food to that which has been rejected. How would the reader like a badly boiled potato tied to his nose while partaking of his dinner, or the remains of dinner served on his plate at tea time. The scent of cattle, in certain directions, is as keen as that of a dog; and when hay has been breathed upon and turned over a few times, they will not eat it unless very hungry.

What cattle or horses leave should always be removed from before them, before being fed again, and when the meal is ended, crib or floor should be left clean. Especially so should this be the case with swine. It is an old saying that a horse will starve tied to the hay stack, even if the hay be of good quality.

STEAMING FOOD FOR CATTLE.

Are we to see on our small New England farms the steam boiler in as general use as the mower now is? "If so great a saving as one-half can be made in feeding stock, I should think some one would have found it out before," says a neighbor. If one-third can be saved, I think it is a gain too important to be lost, unless its cost puts it beyond our reach. I saw an account of a German who steamed his feed and fed it warm in cold weather, thus, as he said, effecting a considerable saving of food ordinarily used by the animal, in elevating the temperature of its food and water to that of its body.

Now, if any one has by a long and carefully conducted experiment, shown the utility of steaming, and is willing to give us its cost and its value in figures and facts, I should be very glad to hear him.

MEAL AND MEADOW HAY.

I have heard it remarked that the milk only pays for the grain consumed, leaving only the value of the manure to pay for the hay and use of the cows and labor,—not very lucrative business if this be so. Now, if it be true that meal is too highly concentrated food for milk cows, soon destroying their usefulness when freely fed to them, and that poor meadow hay is so innutritious that it is of itself utterly unfit for making milk, it seems highly desirable to combine the two articles. Indian meal fed dry increases the milk very little if any, it is said; but if it were fed in the form of gruel or pudding, would it not be one of the best articles for the purpose, that we can get?

FINE FUEL.

It is said that a cord of wood reduced to shavings will in a proper boiler, make more steam than if it were burnt whole. If this be so, why could not granulated fuel be employed for this purpose. This fuel is prepared from small trees and brush cut, at small cost, by a machine, into pieces only a few inches in length and dried under cover. As the cost of the fuel would be little more than the labor, perhaps it might serve the purpose better than wood or coal. I should like to know if it has ever been tried by any one, any where, for this purpose.

FAILURE OF PASTURES.

What are we to do for pasturing? If we are to increase the amount of pasture feed, or even maintain the present supply, something must be done. Already some are obliged to feed their cows on hay and grain during the whole of the year. Much of our land is too rocky to plough, and many are so inclined to produce brush and wood, and they are so valuable for this last named purpose, that little land is now cleared for pasturing, while the old pastures, which cannot be ploughed, are annually producing less. Shall we let all the land now devoted to woodland and much that has been used for pastures be devoted to producing fuel only, or is there some way in which at least a portion of it may be subdued to grass, so as to yield a greater profit?

DESTROYING BRUSH BY SHEEP.

If any one has tried to kill brush with sheep, by placing them upon the land in the spring,—the brush having been cut the previous fall,—in sufficient numbers to consume every sprout as soon as it starts, thus keeping them constantly succulent, and feeding grain to sustain the sheep, until the brush is killed out entirely, and the ground fully stocked with grass, I should be very glad to learn with what success and profit the operation has been attended. It seems to me that this must be the way to enlarge the area of our pastures, where the plough cannot go. C. F. HAYES.

Westford, Mass., Jan. 6, 1871.

REMARKS. — Our correspondent manifests a thoughtful, inquiring mind. His questions will stir other minds, and those probably who can answer some, at least, of his queries. Asking questions is said to be a Yankee's privilege; it certainly is everybody's privilege in these columns of Extracts and Replies. But how will the account balance unless about as many facts are stated as there are questions asked? Still we want the questions to bring out the facts. When asked to write for the paper, farmers sometimes say they have nothing to write about. These questions furnish topics or subjects for writing, which we hope will be improved.

FOOT AND MOUTH DISEASE.

I see that some of the readers of the FARMER are considerably alarmed about the foot disease in cattle. We have never had any cases in this town; but in the adjoining town of Compton it has been quite prevalent. I was conversing with a gentleman from that town, a few days since, who said that the best treatment was not to do anything for it. He said it was contagious, like the cow-pox, and would go through the whole herd, but would not injure the cattle any more than the above disease. Those that had used acids and other medicines had injured their herds much more than those that had done nothing. Give them good keeping and they would soon get over it.

Some years ago I had a disease given to my cattle by putting a stranger's horse in my barn. All my cattle were soon affected with sore mouths and frothing, and they were so low that they could eat nothing for several days. My horses as well as cattle had it. At first I feared they would starve. All I did for them was to open their mouths and put in a good handful of fine salt. It would make them almost crazy, at first, but in a little time they would seem better. The disease continued only about a week or ten days. Of course it took off some flesh, but I did not lose any of them.

Eaton, Can., Jan. 13, 1871. HIRAM FRENCH.

HINTS ABOUT KILLING SWINE.

The rope for the hog's nose should be small and strong, and have a good sized iron ring to hold easily in the hand. Let the hog out of the pen, which is apt to be a hard place for a scuffle. Let him run. He will soon tire, and may be seized by a hind leg, the noose slipped over his snout, and laid upon his back ready for sticking. The blood may be drawn by an insertion of the knife a little before the front legs, directly down towards the spine. Any further cutting is not only useless, but injures the meat. At the great slaughter-houses, the victims are despatched by a single, effectual stab.

It is well to wash the hog before scalding. It saves time and rosin, to put the rosin into the hot water instead of dusting it over the bristles. An old, worn-up, round-cornered hoe, with a two-foot handle, is the best tool to take off bristles. After one end of the hog is well scalded, scrape it about clean while the other end is under the water. Don't forget that the animal heat must all be taken out of the meat before you salt it. Split the hog always through the ribs, and let him hang over night. W. D. BROWN.

Concord, Mass., Jan., 1871.

COLORED OR UNCOLORED BUTTER.

Our cows are not of the pure Jersey stock, and as a consequence, butter made from them while fed with common winter feed is not "gilt-edged." We have never used carrots or anything else to color it until this fall. We have customers who have used our butter summer and winter for years, through all shades of color from dandelions to hay. Some were quite satisfied with the straw color of winter, others often referred to the beautiful Jersey butter found in Boston and Philadelphia.

Sometime this fall, but not until after our butter began to grow pale, we used annotto. Of course it was noticed. After several had used it a week or two, one gentleman inquired why his butter was of such an unusual color, remarking at the same time that he was unable to detect any difference in its taste. When told that it was colored, he said he had rather see good colored butter, but had a prejudice against any foreign substances in his food. As we make butter to suit our customers if possible, we have since then, by his request, given it to him uncolored.

Those of our customers who said so much about Jersey butter have, since learning that "gilt-edged," Jersey cow's butter and annotto were so nearly synonymous, preferred butter without color.

A new customer had never seen any but the colored butter until a week ago, when one pound of uncolored was sent with the other. This week there was none but uncolored. When the question was asked why the difference in the color, and the whole process was explained, the customer remarked that our butter had been nicer than any winter butter he ever saw before. They supposed we had real Jersey cows, but if it was annotto they had been eating; they preferred the natural color. All of our best customers refuse annotto, though not one of them has been able to detect anything in the taste differing from the uncolored butter.

If the consumers of fancy butter knew they were eating annotto how many of them would prefer its natural color? A.

January, 1871.

THE DODGE WHEAT.

I enclose a sample of the celebrated "Dodge Wheat" that has been raised in this section for several years with good success. It drew the first premium at the Washington County, Vt., Agricultural Society, as did also flour from the same.

Its history is as follows: a gentleman by the name of Dodge was travelling in Lowell, Vt., and selected a few heads from a nice field of wheat. By a judicious selection of seed he improved it very much. I have raised this wheat five years, always screening my seed with one of Hildreth's wheat screens. It has yielded as much as fifty bushels per acre. Some consider it as sure a crop as oats. It does not rust nor smut, and is not apt to lodge. A. M. FOSTER.

Cabot, Vt., Jan. 9, 1871.

REMARKS.—Two very fine heads of bearded wheat, one six and the other seven inches in length, were received with the above, as well as specimens of the grain and flour.

ASCARIDES OR PIN WORMS IN HORSES.

What is the best remedy for worms in horses? Mine has what I suppose to be pin worms. At times he has a large number come away from him. When they leave him so freely is he not doing well? "SNIP."

East Otisfield, Me., Jan., 1871.

REMARKS.—We are inclined to think so, and should hesitate about attempting any great amount of doctoring. We have heard of instances in which these worms have been lessened by keeping the anus well lubricated with lard or other grease or oil, for several days. The worms breed at this point, not in the bowels, and if kept oily their increase is prevented. An injection of four ounces of aloes in one quart of whale or any common oil, with a common large syringe, every morning for five or six days, in connection with physic, is recommended by a correspondent of the *Country Gentleman*.

FOOT DISEASE IN CATTLE.

As there is much excitement in Massachusetts in relation to the foot disease in cattle, I deem it a duty to say that I have cured an ox troubled with the same disease by applying a strong solution of carbolic acid three times, then putting on hot tar once. SOLON SUMNER.

Bristol, Vt., Jan., 1871.

REMARKS.—The disease which is now prevalent in Massachusetts is, we believe, something quite different from any known in this country previous to August last, and we hope the Epizootic Aphtha has not as yet reached Bristol.

CREAM THAT COULD NOT BE CHURNED IN SUMMER.

In his reply to the question, What ails the cream? Mr. Bliss says he never knew of any trouble in the summer. I have. In 1838 and 1839 my father had a cow that, in the best of feed, gave thirty-six

quarts of milk a day, but he could not get four pounds of butter a week from her milk, and it took from one to two days to churn it at that. In 1867 I had a cow that came in in the spring, and in August one day's churning of her cream was not long enough to make the butter come. In these cases the trouble was with the cows. Hence I agree that good cows and good feed are necessary to make the butter come. O. H.

Wallingford, Vt., Jan. 12, 1871.

MOUTH AND THROAT DISEASE.—BRONCHITIS.

Last January, (Monthly FARMER, page 119) we published a statement of cases in Cheshire, Mass., of cows with a swelling of the neck, throat and tongue, accompanied with constant drooling. We are now informed that Mr. G. A. Carpenter and others of that section, have recently lost cows by the same disease.

This may be the disease described in veterinary books as bronchitis,—an inflammation of the windpipe, lungs, &c. Dr. McClure says the great trouble with this malady is the fact that it is not generally noticed until it becomes so bad that it is difficult to control. It is an irritation of the fauces of the mouth, throat, and sometimes lungs and chest, and is apt to affect a whole herd. He advises farmers whose stock may be exposed, to study and compare the sounds in the wind-pipe of well and diseased animals, so as to be able to detect the disease in its early stages. A slight rough, grating sound will first be perceived. In a week or so a slight husky cough, with weeping from the eyes, and a watery discharge from the inner corner of the nose will be perceived.

The treatment prescribed by Dr. McClure is as follows:—If the disease be discovered within forty-eight hours from the attack, take from four to five doses of the tincture of aconite root, twenty-five drops to a dose, and give one dose every four hours.

If there be uncertainty as to whether the disease has existed longer or shorter, to save time the aconite may be given along with the following powders, three times in the day: Powdered sulphate of iron, three drachms; powdered gentian root, half an ounce; powdered ginger root, half an ounce; powdered sulphite of soda, half an ounce; mix and make a drench, to be poured down the mouth out of a strong bottle. This medicine is to be continued (omitting the aconite after the fifth dose) till the animal is well, or looks brighter, and eats all it gets. If it be a milch cow, the usual quantity of milk will be given. In addition to the above medicines, give, once or twice daily, half an ounce of commercial sulphuric acid, largely diluted or mixed in half a bucket of cold water. In feeding, care should be taken not to give too much, so as to bring on dangerous indigestion.

PREPARING FODDER — FERTILIZERS — MUCK — TIME FOR SETTING OUT SHADE TREES.

I have lately subscribed for your paper, and I am well satisfied that I have made a good investment. I feel that I have lost a great amount of useful information by not subscribing for it before.

I am living at the present time on a farm of twenty acres. This little farm is very pleasantly situated on the Charles river, and is owned by an uncle of mine.

I was much interested in reading an article on the best method of preparing fodder for stock, in the last number. I think I shall try cutting and steaming fodder for my stock on a small scale.

I read and hear a great deal said about fertilizers. I have used Bradley's Superphosphate, and seen it used on different kinds of land, and I am convinced that it works well on most all kinds of soil.

I consider muck worthless, except as it is used as an absorbent,—and I use a great deal of it for that.

Will you please inform me as to the best time for setting out shade trees, such as pine, maple and elm? D. R. SPAULDING.

Dover, Mass., Jan. 1, 1871.

REMARKS. — The exact time for transplanting trees is of less importance than the proper way of doing the work. Deciduous trees, or such as shed their foliage in the fall, will bear bad treatment better than evergreens. The roots of pine trees and other evergreens will not bear the sun or air near as well as the maple, elm, &c. Just as the new growth of evergreens is commencing, about the first of June in New England, is generally considered a favorable time to transplant them, while maple, &c., may be planted earlier. But do the work well, and not expose the roots to dry air or sun—take them up and set them out some rainy day or at night—and evergreens may be safely transplanted at almost any time.

SCARLET BOUVARDIA.

Will "S. O. J." have the kindness to give directions for the successful cultivation of the "scarlet Bouvardia," the kind of soil, temperature, and treatment. Though my plants are usually quite flourishing, and free from aphis, with this I have failed, but admire it so much when well grown, that I shall be glad to know the wherefore.

A CONSTANT READER.

REMARKS.—The following is S. O. J.'s reply:—

We have not always been successful in the culture of the Scarlet Bouvardia. It will not thrive in the dry, heated temperature of our common sitting rooms, but, like the verbena, requires a cool, moist atmosphere, and a rich, loamy soil with a mixture of sand, at least a quarter of the whole bulk of the soil. It is also, like the verbena, subject to the ravages of the *aphis*, which injure its growth and beauty. This season we had procured a fine variety, the *Bouvardia Elegans*, which is a "*novelty*," and has much larger clusters of flowers, of a brighter and clearer shade, and far handsomer than the species usually grown. In December, it was growing beautifully, the sandy, rich loam, and the cooler situation, were doing their work, and it had four beautiful clusters of buds beginning to show their rich scarlet tint. But they were covered with green flies in all stages of life. Their presence was not to be endured,—a warm water bath must be given them! So we prepared it, but the morning was chilly, our fingers were cold, and the result was, the bath was too warm for the health of the plant. All the green aphides were killed—so also were all the beautiful buds and leaves!

The plant still survives, and is now recovering from its hot bath. Not an aphis has dared to show its wings, and green leaves now promise a wealth of buds. We hope that "*Constant Reader*" will profit by our experience, and will give her plant a cool temperature, and a cool bath, and a rich, sandy home. If watered once a week with guano water, it will flourish more luxuriantly.

BARN OR WINTER ITCH.

Will you be so kind as to give me any information with regard to excessive itching among cattle in the winter, and also state some remedy for the same? My cattle are not lousy, though some of them seem to suffer as much from constant itching as if they were. Any information regarding the matter, either from you, or your numerous contributors, through the columns of the NEW ENGLAND FARMER, will be thankfully received.

ALBERT HARRIS.

Hudson, N. H., Jan. 22, 1871.

REMARKS.—Sailors confined to a diet of salt meat and dry bread are often troubled with scurvy. It is possible that the change from green feed and pure air of our mountain pastures to dry hay, close confinement and bad, perhaps damp, air of stables tends to produce in cattle a disease somewhat similar. A disease among stock known as the Barn Itch is not uncommon, but its cause is not well understood. If it is produced as the scurvy among sailors is produced, then potatoes or other roots, or even browse, might be beneficial. But if the disease is of animal origin, as the itch in man, an ointment of sulphur may give relief. Take lard or any soft grease and stir in sulphur till it is quite thick, and anoint the parts affected. In some cases the grease, alone, applied after rubbing the affected part till the surface is smooth, has proved beneficial.

FODDER CORN FOR WINTER USE.

Would you advise a young farmer, keeping a small dairy, to plant a few acres of sweet corn, as fodder corn for winter use? If so what is the best variety to plant, and where can it be obtained, and at what price? At what time in the season should it be planted, and how should the ground be prepared, and how much seed per acre is necessary?

Fairlee, Vt., Jan, 10, 1871. A. W. PAINE.

REMARKS.—Cornstalks are so difficult to cure that we should not advise you to grow any such quantity as you name at first. Sweet corn, suitable for sowing for fodder, may be bought in Boston at $3 to $5 per bushel. But why not save your own seed, or use ordinary corn? If sown in drills three and one-half feet apart, two bushels are enough for an acre. The land should be rich and in good order, and a small patch will produce much fodder. Corn is often sown too thick and cut too green. It is usually sown in the spring soon after planting field corn. Last year the subject was pretty fully discussed in the FARMER, with directions for curing fodder corn for winter use, &c.

PLOUGHING IN MANURE.

I desire to endorse publicly the remarks of C. F. Lincoln, Woodstock, Vt., on the application of manure. In nine cases in ten I think manure should be covered by a shallow furrow, at the time of applying the manure. Very wet land forms an exception to this general rule. Were we certain of a wet season, like those of 1868 and 1869 in this section, the harrow might be used instead of the plough, but in seasons like the past, manure not ploughed in dries up, unless the manure is well rotted and fine when harrowed in. When the land on which manure is ploughed in with a shallow furrow is next ploughed, it should be ploughed deep.

P.

Plymouth, N. H., Jan., 1871.

VERMONT DAIRYMEN'S ASSOCIATION.

BURLINGTON, THURSDAY, Jan. 19, 1871.

Mr. T. D. Curtis, of Utica, N. Y., read a paper on

"The Needs of the Dairy."

Prefacing his remarks with a few words on the necessity for co-operation without jealousy among workers over the country, and of the proper combination of practice and theory, Mr. Curtis spoke of the growing necessity for skilled labor and educated laborers on the farms of the country, for more brain and less muscle.

He deprecated the hasty spirit of speculation which has so much ruled the dairy interest hitherto. That which is best for the future is best for the present; cheap factories and dairy houses should be abandoned,—they were well enough for the first experiments, but now fail to realize the best results. Too little attention was given to preservation of proper temperature; and old factories can never make the best cheese until rebuilt. You Vermonters should take advantage of our experience. One great drawback in factory system is in credited number of pounds of milk—it should be in proportion to value of milk, quality is rarely taken into consideration, and some remedy should be devised. At last convention of Am. Dairymen's Association, a committee was appointed to investigate the matter.

Thorough and scientific experiments should be made to determine the value of different kinds of milk for cheese or for butter; the best conditions and methods of manufacture—of pressing and curing. Cheesemaking may be lifted to the rank of a science. I have suggested the establishment of a model experimental factory, not for immediate profit, but for knowledge.

Rennet is one of the most important things in cheese making. Two of the most valuable papers ever presented to the Dairymen of the country, were by L. B. Arnold on "Rennet," and by Prof. G. C. Caldwell, on "Putrefactions and their application to manufacture of cheese," in 1869, before the Am. Dairymen's Association.

From the first of these papers—which were published in the Report of the Vt. Dairymen's Association for 1870—Mr. Curtis gave some extracts. We cannot be too careful in keeping and using rennets. Butcher's rennets have been proved worth only one third those furnished by patrons of factories. Much experiment ought to be made in preparation of rennets.

Prof. Caldwell's paper, from which he also quoted, shows how the action of rennet is occasioned, by the development of fungus particles, called micrococcus cells. My opinion differs from his, that blue-mould cells and those of rennet are in the beginning, the same; but a series of careful experiments in the matter is very essential.

Pure air and the cooling of the milk are essential for the best make of cheese, as has been abundantly proved. The home consumption of cheese should be increased, for it is healthful and economical food; we must not eat only what poor cheese won't

sell. The home market is of more consequence than the foreign, and should be carefully supplied and cultivated. The cost of cheese-making should be reduced, by employing the best methods and materials, by increasing the productiveness of the soil, and the value of cows,—and without always looking for immediate returns, either—and by increasing scientific knowledge on the subject. The farmer must have more and better learning; there is no position which requires so much as that of the future farmer. The farm cannot much longer do without book learning; and let your boys understand that farming is henceforth not to be mere backbreaking drudgery, for where can all the faculties and talents be so fully brought into play.

Mr. Harris Lewis of Herkimer county, N. Y., followed with a paper on

Cheese Making.

Vermont will always produce, with proper management, grasses suitable for the production of best cattle and cheese; so does Herkimer Co., and we can surely join in saying "All flesh is grass." We can both defy competition in any market in the world. I will try to present to you the system of management in our county; yet rules on paper are so arbitrary, I find I must lay my paper aside and rather give you a talk on the subject. You remember the story of Naaman the Syrian, in the Bible, what great expectations the man had, and his disgust at the simplicity of the remedy proposed. It may be a good deal so with you as to cheese-making. We have no secret. We take the evening and the morning mess for a single curd; start the water between the walls of the vat to cool the night's milk, and by the time milking is done the water space is full, and the agitator begins to be moved by the waste water. The point of cooling is important. I find by experiments that 65° is the most favorable point to which to reduce the evening's milk; it also needs agitation, airing, to free it from animal odor, the new-milk smell. We hold it at that heat till the morning's mess is all added; let the agitator continue at work before a fire is started to raise the temperature. Here is a vital point; adding the evening mess reduces the temperature, takes out the odor, and places it in a partial state of ripeness, as I may call it. When the morning milk is all added, the water is stopped, fire is started and the mercury raised to 84°. Here there is room for variation. If the weather is cold, and the mess small, set it a little above this heat; if the weather is hot, below. All these things must be determined by sound common sense. If you color, now is the time to add the coloring. I think cheese ought not to be colored, and never would color a pound, if consumers did not demand it. Put in just enough anotto to make a bright straw color. Now add the rennet, enough to perfectly coagulate in 40 or 50 minutes. If you design cheese for immediate use, add enough to coagulate in 30 minutes. When coagulation is perfect, when the curd has "come,"—so that by dipping the finger in it, it will break clean, it is in the best condition to cut up. Would prefer if possible to cut it in blocks about half an inch cube. A moderate heat should be applied after the curd has settled a little below the whey, to raise it to 88 or 90 degrees. Do not stir it; in no way can a cheese be so completely "skimmed" as by stirring it up; do not move it while in a tender state. When firm enough to move, raise the heat to 98 or 100 degrees, still stirring as little as possible, and keep it there till sufficiently "cooked," as it is termed, which is to be judged of by taking a handful and squeezing it; when if the curd falls apart, it is done. We think it a better practice to draw off the whey, but many do not, but let it remain till acidity develops. We gather the curd at one end, raise the vat a little, and let the whey drain off. Formerly, at this stage, we salted and then put it to press; but now we let it remain till a perceptible sourness appears, then put it in a hoop and press out most of the whey, and then run the curd through a mill; after which we salt it. The advantage is in better proportioning the salting. We use a pound of salt to 56 or 60 pounds of curd; early-made cheese requires a little more, and late made cheese a little less. Use the best of salt, and mix it thoroughly. After grinding and salting, it is best to spread and air it thoroughly; bring it to the temperature of the room, and then press it, as much or as little as you like.

This is all there is of Herkimer Co. cheese-making. If the cheese fail, it is in the curing, ten times to once in the making. The proper temperature for a curing room is 72°, by my experiments, and it should be an even temperature.

I think milk requires a certain degree of "ripeness" to make the most and the best of either butter or cheese. Milk just drawn will not make cheese; the exact method of determining the proper age is what I hope some day to see found out.

The matter of cream has given me much trouble. To save it, I have always skimmed it off to make "sweet butter" so called, and never had a dealer complain that my cheeses were "skim-milk" either. It must else go to the pig-pen, for you cannot mix it with the curd and have it stay.

I will lay down, in conclusion a few propositions intended to provoke thought and discussion; if they do, I shall have attained my end in coming here, for action on your part will certainly follow. 1st. Perfect neatness is absolutely necessary. 2d. Milk free from all impurity, taint, or odor, is essential. 3d. The greater the yield from a given quantity of milk, the better the quality. 4th. The successful cheese-maker must be qualified by nature, by study, and by practice. 5th. Unfailing success will only attend those who in proper time attend to the minutiæ of their business.

Discussion followed, Messrs. Lewis and Curtis being questioned on some of the details of the process, the former holding stoutly to his assertions that the temperature of the curing-room must be 72°, that the curd should be stirred as little as possible in the vat, and that the cream, if once risen on the milk, cannot be saved for the cheese—the divorce being final.

THURSDAY AFTERNOON.

Peter Collier, Professor of Chemistry in the University of Vermont and Agricultural College, read a scientific paper on "Chemistry as applied to Milk, Butter and Cheese," explaining the constituents of milk, their qualities and uses, the changes which take place in it, in the formation of butter and cheese, and showing the scientific and chemical reasons why this and that thing is done by the maker, and urging the necessity of more exact experiments by scientific and practical men, as to the effects of temperature, of rennets—now so much of a mystery—of different modes of getting milk and working the buttter and cheese, &c.

The subject of cheese-making was then taken up, and Mr. Augustus Smith of Danby, addreseed the Association at some length, setting forth his own practice and the conclusions to which he had come, which did not differ very much from those of Mr. Lewis, already reported. He also attached the greatest importance to proper curing, maintaining the room at an even temperature between 70 and 75 degrees. He would have the hand and eye edu-

cated by practice, and not rely entirely on the thermometer during the process of cheese-making, and considered it essential that the cheese-maker should have a housewife as interested as himself in the production of the best article. In one respect, his practice differed a little from that of Mr. Lewis; he cooled his milk in a very large and shallow pan, and never got enough cream to rise to make butter for his own family.

A discussion followed on the use of ice, which was deprecated by Messrs. Smith, Lewis and Curtis, and some other points of cheese-making, kept up till it began to grow dark, when the Association adjourned till evening.

EVENING.

The evening session was opened by a few remarks, at the request of the President, from Governor Stewart. The evening was spent in talk, mostly about fodder and soiling of cattle, and Mr. Lewis and one or two others were put through a pretty severe catechizing.

Mr. Smith, of Danby, had planted corn for fodder and obtained good results, when grass feed failed. Mr. Lewis supported his proposition that grass could be raised to cut for fodder and was better than corn. Mr. Parris of Fairfax, had obtained much better results from raising oats for fodder than corn.

Whether such a crop would pay, was discussed; and most agreed that a farmer must often raise crops that don't pay, in dollars and cents. Mr. A. Stowe of Westford, gave some details of an experment in raising both corn and oats for fodder. That different crops did better in different places, must be conceded; and observation and experiment will tell each man which he can raise best, for the laws of nature are certain, and only by obeying them can the best results be reached, in any pursuit.

FRIDAY, Jan. 20.

A paper on "The Natural History of Cattle," by Prof. G. H. Perkins of the University of Vermont, was read by the Secretary. Describing some of the anatomical characteristics of cattle, and the process of digestion and nutrition, the writer spoke of the different animals used in different lands for milk, and of the different qualities of milk to be obtained from the cow. The Ayrshire cattle are held by authorities to make the best returns for the dairy upon the average,—the Jersey being too good for ordinary purposes. The great majority of dairy cows now are of no one breed, but are the result of crossing of many breeds. English and Dutch cattle were imported very early. The best judges say our dairy-stock is not improving; if so, it becomes an important question how to make a change in this respect. Whether to improve the native cows, or to use the high-bred imported races is yet to be decided; it will take diligent care and labor, but by it the dairy interests of the country may be more benefited perhaps than most will imagine.

A paper was then read by E. R. Towle of St. Albans, on the

Management of Cows.

Whether the breed be chosen with reference to object of dairy or not, the management is not always the best. Not so much attention has yet been paid to the proper care of pastures, to the raising of forage crops and other points. But few pastures will yield food enough for the whole season. Plenty of good water should always be supplied. Many details usually thought small, are really of great importance. As fall comes on, cows need more attention; it will be found easier to keep them in condition than to regain their lost flesh in the spring; there is little fear of their getting too fat. Much of the good results of the following season depends on how cattle are kept during the winter. If milk is expected in quantity in December, the cows should be carefully fed; but whether the increased care and expense will be profitable, is yet to be determined. Most farmers in our section feed but twice a day, while cows are dry, to save time.

As milk-time comes on again, the quality of food should be improved; if they have not extra food and care, decrease of milk will surely follow. There has been lately some improvement in managing cows, slow but sure; and when an improvement proves itself really such, it will be adopted.

A discussion followed on the question of stock. Mr. Lewis thought it highly important for the dairy farmer to raise his own cows; he discussed the qualities of different breeds, and said he had found grade Ayrshires to give the best results in butter and cheese for a given amount of food. He was raising both Ayrshires and Durhams; but thought Ayrshires crossed with Devons might make a still better breed. Mr. Lewis urged the value and importance of Farmers' Clubs.

Col. Mead of Randolph, said we must raise a breed that will be serviceable for beef when their milking is gone; and for himself he was satisfied that the short-horn was the best. We can if we will, breed a race of short-horns that shall be as well known as Vermont cattle, as Vermont sheep and horses are, and as peculiarly suited to our State and its needs.

Col. Mead of Randolph, moved that a vote of thanks be given to Messrs. Lewis and Curtis of New York, for their presence at this meeting, and the great help and service to the Vermont Dairymen's Association which they have rendered. The motion was promptly and heartily seconded by Messrs. Douglas, Stone and Bliss, and was adopted by a rising vote of the whole assembly.

The Association then adjourned to meet at the call of the Executive committee. Although neither Governor Atwood of New York, nor Mr. Goodale of Maine were present, our correspondent, O. S. Bliss, Esq., writes to us that the meeting was "a splendid success."

—The October Report of the foot and mouth disease in Great Britain, named 3002 centres of infection. In 30 days thereafter the centres of malady had been lessened by 248. There would be stronger hope of the malady being on the wane, if the local authority was energetic in using preventive means in all parts of the country.

VT. BOARD OF AGRICULTURE.

Under an act passed by the Legislature of the State, the following gentlemen were nominated by the Governor, and confirmed by the Senate, as a Board of Agriculture, Mining and Statistics:—

Gov. John W. Stewart, *ex-officio, Pres.*; James B. Angell, *ex-officio*, ex-Gov. F. Holbrook, N. B. Safford, C. H. Heath, A. B. Halbert, P. W. Hyde, Z. E. Jameson.

Agreeably to a call of the Governor, the members of the Board met at Burlington, Jan. 19, for the choice of Secretary, for the completion of the organization, and preparation for its work. Hon. P. W. Hyde and Hon. C. H. Heath of the Frst Congressional District; N. B. Safford, Esq., of the Second District; and Hon. A. B. Halbert and Z. E. Jameson, Esq., of the Third District, together with the Governor and President Angell, *ex-officio*, were present, being all the members except Gov. Holbrook, who declines to serve upon the Board. The Board made choice of Prof. Peter Collier, of the University and State Agricultural College, as their Secretary.

The history of the Boards of Agriculture in other States has shown that their efficiency depends on the Secretary. He is the managing and working agent of the Board. He should be not only a worker himself, but one that has the knack of setting others at work and of keeping them at it. If he has "other fish to fry," the agricultural trout is apt to be poorly served. If he has other offices to fill, or other business to transact, or is elected because he is somebody's friend that must be provided for, the drudgery of Secretaryship is likely to be neglected, or postponed till the next year or even later, as in the case of the Board of New York, and some other States.

The gentleman elected Secretary of the Vermont Board of Agriculture is Professor of Chemistry in the Agricultural College at Burlington, and the *Free Press*, of that city, in congratulating the Board on securing his services says:—

Prof. Collier has very fine qualifications for the position. He is practically as well as scientifically familiar with agricultural affairs, as those who have heard the part taken by him in the discussions of the Dairymen's Association have perceived. He has practical as well as scientific knowledge of mining. He is, in fact, thoroughly informed in most of the practical sciences, and has an acquaintance with gentlemen engaged in investigations such as the Board is expected to pursue, which cannot fail to be of high value to the Board. He is a young man, and will bring to his position enthusiastic interest in the work of the Board, and in the welfare of the State.

VERMONT STATE AGRICULTURAL SOCIETY.—At a meeting of the Directors of this Society at Bellows Falls, January 25, a Committee was appointed, as we learn from the *Times*, to locate the next State Fair, consisting of J. W. Colburn, of Springfield; John Gregory, of Northfield, and James A. Shedd, of Burlington. The competing places for the location of the Fair are Rutland and White River Junction. George Hammond, of Middlebury, and H. M. Hall, of Burke were elected Directors to fill the vacancies caused by the death of Henry Keyes and Edwin Hammond. Resolutions of respect for the memory of Edwin Hammond were adopted, and appropriate remarks made by Hon. John Gregory, Hon. Crosby Miller and Henry Clark.

VERMONT HORSE STOCK COMPANY.—The annual meeting of this Association was held at Bellows Falls, January 25. The *Times* says the amount of stock already subscribed is over $28,000, and the location of the stock farm is to be decided upon during the next thirty days, and will be given to the County which subscribes the most stock, other things being equal. The following officers were chosen for the year ensuing:—

President—H. G. Root, of Bennington; *Vice Presidents*—Col. J. B. Mead, of Randolph; Harley M. Hall, of East Burke; *Secretary*—L. T. Tucker, of Royalton. *Treasurer*—Henry C. Horton, of Vergennes.

PRACTICAL SUGGESTIONS.

[Furnished for the NEW ENGLAND FARMER, by W. D. BROWN, Concord, Mass.]

—It is poor economy to reset thin wheel tires.

—Every farmer should have a brand to mark his cattle and tools. It will save its cost, often.

—A wagon shed, centrally located and easy of access, is a great convenience. It is an investment that will pay.

—A barn, located square up to the highway, like a city block, is worth about half price. No land is too valuable for buildings.

—Every prudent farmer will avail himself of the comparative leisure of winter, to put every vehicle and implement in complete repair.

—Don't live another year without a tool room. It will save hours of vexatious search for forks and shovels, that should be ready without a moment's delay.

—Two dollars a day for a farm hand, makes it important that he should have good tools to work with. They cost considerable. Insist that he use them for the purpose for which they are made.

—If new tools, unpainted, are soaked with raw, linseed oil, they will work easier, and last longer. Why don't manufacturers do it by the wholesale?

—It seems reasonable that a laboring horse should have a room to lie in at night, where he can turn over and shift about.

—If your colts are hard to get into the barn, after their daily exercise, let them find a few oats in their manger after coming in, and *that* trouble is over.

—The reason why the horse rubs off his blanket nights, is, the girth hurts him. Have it padded and looser, and fasten the blanket partly under the breast, and perhaps by a crupper.

—The elliptic springs on most freight wagons are too light, and often nearly close with the load.

Then the draft is positively increased, and the load liable to injury.

—Better pay a carpenter for making flights of stairs in the barn, where needed, than a doctor for mending bones broken by using ladders. Rule: things in daily use should be exactly adapted to the need.

AGRICULTURAL ITEMS.

—For pin worms in horses the usual remedy is to give aloes in the form of a ball. An injection of a weak solution of carbolic acid is resorted to quite often of late.

—A fatal disease called "the black-leg" is prevalent among cattle in Boone county, Iowa. The flesh becomes dark, the blood almost black in the veins, and the heart full of coagulated blood, when death ensues.

—The decrease in cultivated acres of wheat in Great Britain, according to the returns of 1870, is 5.3 per cent. Barley shows an increase of 5 2 per cent; cattle have increased 1.5 per cent., and sheep have decreased 4 40 per cent.

—A correspondent of the *Southern Cultivator* says that oxen may be rid of lice, by giving them two tablespoonsful of sulphur mixed with salt, in the morning of a warm day, and then work them hard enough to keep them hot. By night all lice will be gone.

—A veterinarian correspondent of the *Western Farmer*, says that very tight warm horse stables are just the things for horse doctors, as they give them lots of business, and that the open barns of this Western country are the greatest enemies the veterinary practitioner has to contend with, for they continually rob him of his practice.

—Mr. S. C. Mason writes to the NEW ENGLAND FARMER that he has kept large herds of cattle, and has been troubled with a disease known as foot rot, which he has cured by putting air-slacked lime on the floor of stables, drive-ways to the barn, &c. The disorder to which he alludes is probably something different from the Epizootic Aphtha, but the use of lime is recommended in case of the latter disease.

—The Norristown, Pa., *Herald* furnishes the following remedy for chicken cholera:—One ounce of assafœtida; two table spoonfuls of cayenne pepper, pulverized; one peck wheat bran; one handful salt. Dissolve the assafœtida in a cup of hot water; mix it all together like thick mush; prepare the night before; put it in the trough every morning if bad, and continue until a final cure.

—X. A. Willard gives it as his opinion that hundreds of thousands of pounds of cheese have been lost during the past summer by the lack of attention to the temperature of curing rooms. He believes progress had been made during the past few years in this department, but much remains to be accomplished, and the principal improvement must lie in securing a proper and uniform temperature of the cheese while curing.

AGRICULTURAL SOCIETIES.

CALEDONIA COUNTY, VT.—The annual meeting of the Caledonia County Agricultural Society, was held at St. Johnsbury, Vt., January 17th, Harley M. Hall, President, in the chair. The following officers were elected for the year ensuing:

President, Chas. A. Sylvester, of Barnet; *Vice Presidents*, Calvin Morrill, St. Johnsbury; Joshua Bemis, Lyndon; *Secretaries*, I. W. Sanborn, Lyndonville; H. C. Hastings, N. M. Johnson, St. Johnsbury; Chas. D. Brainard, Danville; *Treasurer*, C. M. Stone, St. Johnsbury, together with an Executive Committee, consisting of one or more members from each town in the county. The meeting was fully attended. The last Annual Fair, 1870, was one of the Society's best, and a success financially and otherwise.

ADDISON COUNTY, VT.—Annual meeting at Middlebury, Jan. 18. Officers elected for 1871:—*Pres.*, Col. E. S. Stowell, of Cornwall; *Vice Pres.*, A. C. Harris, Shoreham; N. J. Allen, Ferrisburgh: *Sec.*, Albert Chapman, Middlebury; *Treas.*, N. P. Barbour, Middlebury. Also a Board of Town Managers. Resolutions of respect to the memory of Edwin Hammond, one of the founders and best friends of the Society were adopted.

WATERVILLE, ME., JERSEY CLUB.—*Pres.*, N. R. Boutelle; *Sec.*, William Dyer.

ANDROSCOGGIN COUNTY.—*Pres.*, Rufus Prince; *Sec.*, Nelson Horn. The next fair to be held in any town the trustees may designate.

WEST PENOBSCOT, ME.—*Pres.*, Stephen D. Jennings; *Sec.*, T. P. Batchelder, Kenduskeag.

SAGADAHOC, ME.—*Pres.*, W. P. Walker; *Sec.*, G. A. Rogers, Topsham.

HORTICULTURAL PATENTS.—The *Kansas Farmer*, in noticing the petitions that have been circulated for signatures, asking Congress to include new vegetables, plants, roots, woods, &c., among the objects for patent rights, makes a practical test of the matter by anticipating the sort of notices, warnings and prohibitions which would be issued under the proposed enactment:

Know all Men by these Presents, that we, *The Kansas Farmer*, have had granted unto us by the Patent Office of these United States ***Letters Patent,*** for the term of twenty-eight years, upon a *Red Onion*, discovered, invented, propagated, grown, &c., by us, and all persons are forbidden, under the pains and penalties of the law, from buying, raising, or using, said Red Onion, unless obtained from us or our legally authorized agent.

[Signed] KANSAS FARMER.

BEEKEEPING MATTERS.

The New York *Tribune* gives the following as the substance of what Mrs. A. Tupper said in reply to questions which were put to her at a late beekeepers' convention at Des Moines, Iowa:—

Bee-keeping is peculiarly adapted to woman, as she will give more attention to very essential details than man. Italian queens improve in this country. The test of an Italian queen is the peculiar mark imparted to her brood. Italian bees are the most industrious workers, starting in the morning an hour earlier than the black bee; they will make one-third more trips in a day than black bees. Heart's-ease or smartweed afforded the best

food for bees; when feed is scarce it would pay to furnish Alsike clover for food. Bees must have access to water. Raising queens in any but the natural way causes a depreciation of both brood and queens.

In dividing colonies, secure the young queen for the new hive. If to save honey is not the object, two hives can be made out of one colony each Summer. Do not divide before the first week in May, and not then unless the evenings are warm. Leave most of the young bees in the old hive. Avoid having workers enough in the new hive to fill the cells before the new queen begins to lay. Do the changing in the middle of a warm, sunny day, as then most of the stout, able-bodied stingers are absent in the fields.

Do not believe in forcing and feeding bees. Bees brought out prematurely by artificial means will not be strong, and never live to make honey. I winter my bees in a large, dry cellar, kept perfectly dark. Do not regulate the temperature. The cellar should be cold enough to keep the bees in a semi-torpid state. Put them in the cellar in December, and let them remain until Spring. The hives should have holes, that the bees may come out, so that they will not become restless and discontented. Take no extra pains to ventilate the cellar. Out of 100 colonies kept in this way, I do not have a pint of dead bees in the Spring. I prefer in-doors wintering to out-door. One colony wintered out will consume 30 pounds of honey, while one wintered in-doors will eat 5¼ pounds. Bees wintered in-doors are as healthy in the Spring as when put in the cellar.

For the New England Farmer.

BUTTER MAKING.

Milk Shelves.—Saltpetre in Butter.—White Specks.—Care of Cream.—Churning.

I have been quite interested in the various articles on butter that have appeared in your paper, from time to time, especially in "Carrie's" description of her "milk closet," and in the discussion between "S. O. J." and O. S. Bliss on the use of saltpetre in butter.

Mr. Bliss objects to the use of saltpetre, but recommends the use of potash and salsoda in the preparation of annotto-ine. I have never used anything excepting salt in my butter, but do not see why saltpetre should be any more objectionable than potash and salsoda.

I would like to ask "S. O. J." if a small quantity of saltpetre, mixed with the cream, would have a tendency to prevent the sour milk from hardening and staying in the butter in white curdy specks, that require so much time and patience to remove. I think I hear some one exclaim, "there is no need of having white specks; *I* never do!" Perhaps *you* never do, but I do not happen to be so favored. I think that living in the Valley and buying cows in the fall and selling again in the spring, as we do the most of our cows, we do not have as good a chance to select good butter cows as those who raise their own stock. My reason for thinking so is, that one winter, after we bought our winter stock, I hardly had a churning without white specks, and as soon as we sold a part of the cows I had no more trouble. I hope there are some of your numerous readers that can give me a remedy for white specks. If they will be so kind as to do so, I shall be greatly obliged.

I would like to give your readers a description of my milk rack, which for some reasons I like better than "Carrie's." One is, because I do not have to scald the milk, as it sets so high in the room that the cream will rise as well and as quick as it ought to in summer. In fact, I had rather make butter in winter, than in summer. And again, my rack can be taken down in spring and packed away until wanted for use in the fall. The side boards to my rack are seven feet in length and seventeen inches wide, with seven cleats on each, seven inches apart, commencing at the top, and leaving room underneath to set a table to use in straining and skimming the milk. The shelves are formed of two slats, two and a half inches by one, not standing edgewise, as they are not fastened, with the exception of the bottom one, which can be screwed in at each end, and easily removed. The top is covered with a wide board, with a two-inch strip nailed to each end and the front side, both for strength and looks. It will hold inside twenty-eight pans of milk, but I seldom use the two or three lower shelves for milk, as I do not get as good cream on milk set so low, as from that in the upper part of the room.

Not having as much room as I wished for milk, my husband took two strips of board, fifteen feet long, three inches wide and one and a quarter thick, and rested one end and the centre on the rack, the other end extended to the door-casing where it is supported by brackets. This is a very good shelf for a small mess of milk, as it is out of the way of dust and in no one's way.

I skim my cream into large pans and set it in the lower part of the rack, where the temperature is lower than where the milk sets, stirring it thoroughly at every addition of cream. I churn twice a week, and never churn any cream unless it has been skimmed twelve hours at least. Use Morse's churn,—thermometer broken, however,—and warm the cream in the churn while churning, by putting warm water, (ice water in summer) in the section for that purpose. When the cream *begins* to curdle, add when necessary, one cupful of orange carrot juice to twelve of butter. It will be ready to take from the churn in from fifteen to thirty minutes. I work all the buttermilk from it as I take it from the churn. I do not wash in winter, un-

less it is necessary, but always do in summer. Add about one pint of salt to this amount of butter, and find that amount of salt suits my customers better than less, and can always find a ready market at the highest market prices. Please correct and excuse all irregularities, as this is my first attempt at writing for the public eye. A. M. H.

Hampshire County, Mass., Jan. 23, 1871.

For the New England Farmer.

BEST FEED FOR MILCH COWS.

Thanks to your Whately, Mass., correspondent for his compliment in the FARMER of Jan. 14. If he will give my article another careful reading, and compare it with his statement, he will see that he neither understood nor quoted my words correctly.

At the time I tried the experiment, I found that my cows were every day gaining in flesh, but gradually falling off in the quantity; the feed at this time being thirty-two pounds of Indian meal, rye bran, and wheat shorts,—all of them heavy feed,—in about equal parts. Suspecting that my feed was too concentrated and heavy and was producing flesh rather than milk, I resolved upon trying the experiment.

The idea that I intended to convey was, not that the shorts or the bran would weaken the cow, but that the flow of milk produced by the bran would tend to this result; or, in other words, the bran would be expended in increasing milk, rather than strength, and at the expense of the cow.

In order to be fully understood, I will here say that I am producing milk for the New York market, and for the sake of convenience, I shall suppose your correspondent to be making milk in winter.

Your correspondent says: "A friend to whom he has just read the article says that he has been feeding to his cows since the middle of October twelve pounds of shorts a day." "His cows have done well and are in prime condition." "One of them has laid on so much fat that she is in good condition for the shambles;" all of which I have no doubt is literally true, and his experience is just what mine would have been had I kept on the heavy feed.

He further says: I am feeding four cows with shorts, at the rate of ten quarts daily, to each, with good results so far. Still my cows are in fine condition." And well they may be. He then asks, "Will that amount affect the cows injuriously?" Certainly not, and he need not fear abortion or any other disease from that cause. He adds, "my neighbor does not complain of its weakening his cows with a feed of twelve pounds to each, although he thinks they walk as though they were a little stiff, which he attributes to the fact that he keeps them constantly in the stable, excepting that he lets them out just long enough to drink." I should expect that, with that amount of heavy feed and no exercise they might be more stiff before spring.

With regard to cotton or linseed meal, I will say that I am preparing an article upon abortion which will answer that question according to the best of my knowledge and experience.

When I tried the experiment in question, I was feeding 32 pounds of Indian meal, wheat shorts and rye bran, in about equal parts, and this amount I fed twice a day; and in the experiment, I weighed out the same number of pounds of wheat bran (64 lbs.) and fed half at night and half in the morning with an increase of nine quarts a day in favor of the bran.

Wheat shorts, rye bran, linseed and cotton seed meal are all of them milk producing articles, but when fed with or without corn meal, are too heavy and concentrated to produce milk profitably; if fed with Indian meal will dry the milk and fatten the cow. Indian meal is not a milk producing article, but goes to the production of flesh. It may indeed increase the flow of milk for a short time in some cows, but not in others. There are some cows which seem to turn most of their food into milk and get poor. In such cases it is well to feed corn meal enough to keep good the flesh and strength of the animal, and cows that tend to flesh may be fed mostly on wheat bran, which will check the tendency to flesh and produce more milk.

I am now milking twelve cows, one of them a two-year-old heifer; one of them coming in in March, and one is farrow and has been in milk more than a year. I am now feeding a bushel and a half of wheat bran (ship stuff) and a peck of Indian meal twice a day, and making ten qts. of milk per cow, or 120 quarts a day.

I have become convinced that the cobs which will shell a bushel of corn are worth at least as much when ground with the corn as four quarts of meal without the cobs.

I am also convinced that when water can be had by bringing half a mile, it pays well to wet the meal over night if it can be kept without freezing, and that it would pay well to warm the water, if it could be conveniently done.

In answering communications of this kind, it would be a very great convenience if all correspondents would write over their own names. However, if any are afraid that their creditors will find out their whereabouts, they ought to be excused for resorting to a fictitious signature.

To carry on successfully the business of a farm, a great deal of common sense, thought and careful observation are required. No other profession would succeed as well as farming with so great a want of these desirable qualifications.

If every farmer who owns a cow and reads your valuable paper, would try various experiments, such as warming the water, cutting the

feed, mixing the meal with the cut feed, or feeding without mixing, and report the result to the FARMER, we might all obtain a great deal of most valuable information, for want of which, we all lose more than twice the amount of time and trouble of doing it.

Will not your readers set apart some of these long winter evenings in doing so and report the result of such experiments.

T. L. HART.

West Cornwall, Conn., Jan., 1871.

FARMERS' CLUBS.

A true Farmers' Club should consist of all the families residing in a small township, so far as they can be induced to attend it, even though only half their members should be present at any one meeting. It should limit speeches to ten minutes, excepting only those addresses or essays which eminently qualified persons are requested to specially prepare and read. It should have a President, ready and able to repress all ill-natured personalities, all irrelevant talk, and especially all straying into the forbidden regions of political or theological disputation. At each meeting the subject should be chosen for the next, and not less than four members pledged to make some observations thereon, with liberty to read them if unused to speaking in public. These having been heard, the subject should be open to discussion by all present, the humblest and youngest being specially encouraged to state any facts within their knowledge, which they deemed pertinent and cogent. Let every person present be thus incited to say something calculated to shed light on the subject, to say this in the fewest words possible, and with the utmost care not to annoy or offend others, and it is hardly possible that one evening per week devoted to these meetings should not be spent with equal pleasure and profit.

The chief end to be achieved through such meetings is a development of the faculty of observation and the habit of reflection. Too many of us pass through life, essentially blind and deaf to the wonders and glories manifest to clearer eyes all around us. The magnificent phenomena of the seasons, even the awakening of Nature from death to life in spring-time, make little impression on their senses, still less on their understanding. There are men who have passed forty times through a forest, and yet could not name, within half a dozen, the various species of trees which compose it; and so with everything else to which they are accustomed. They need even more than knowledge an intellectual awakening, and this they could hardly fail to receive from the discussions of an intelligent and earnest Farmers' Club.

A genuine and lively interest in their vocation is needed by many farmers, and by most farmers' sons. Too many of these regard their homesteads as a prison, in which they must remain until some avenue of escape into the great world shall open before them. The farm to such is but the hollow log into which a bear crawls to wear out the rigors of winter and await the advent of spring. Too many of our boys fancy that they know too much for farmers, when in fact they know far too little. A good Farmers' Club, faithfully attended, would take this conceit out of them, imbuing them instead with a realizing sense of their ignorance and incompetency, and a hearty desire for practical wisdom.

Almost every good farmer or gardener will sometimes have choice seeds or grafts to spare, which he does not care or cannot expect to sell, and these being distributed to the Club, will not only increase its popularity, but give him a right to share when another surplus is in like manner distributed. If one has choice fruits to give away, the Club will afford him an excellent opportunity, but I would rather not attract persons to its meetings by a prospect of having their appetites thus gratified at other's expense.

The organization of a Farmers' Club is its chief difficulty. The larger number of those who ought to participate, usually prefer to stand back, not committing themselves to the effort until after its success has been assured. To obviate this embarrassment, let a paper be circulated for signatures, pledging each signer to attend the introductory meeting and bring at least a part of his family. When forty have signed such a call, success will be well-nigh assured.—*Horace Greeley.*

GAS LIME AS A FERTILIZER.—A writer in the Scottish *Farmer* says: "I believe that waste gas lime is equal in efficiency to fresh lime for most of the purposes aimed at in its use in farm land. I sold all the lime thus produced at the gas works in Forfershire, for sixteen years, to several farmers, who uniformly expressed their satisfaction therewith. One very useful application of it was its mixture with the large pile of weeds and tangled roots of grass cleared off the fields annually. On being composed in this way, the lime gradually killed all the vitality of the weeds, and returned them to the land in the way of manure. It also served the purpose of opening up stiff clay soils, being first spread over the surface, and then ploughed down."

TO CLEANSE MUSTY BARRELS OR CASKS.—Put a quarter of a peck of unslacked lime in the bung hole of the barrel, into which pour a gallon or two of boiling water to slack the lime, then put in the bung and shake the cask well so that the contents of it will come in contact with all of the inside. Let it stand a day or two, after which rinse out well with plenty of cold water. If the barrel or cask is still musty, the same operation must be re-

peated, and a strip of cloth dipped into melted brimstone and hung down in the bung hole, set fire to and the bung slightly driven in.

SWEDISH SETTLERS IN MAINE.

A few days since we received a letter from a Swedish correspondent, making some inquiries relating to the Aroostook lands in Maine, and the Swedish settlers in that county. We have not at hand the data necessary to give a satisfactory answer to the inquiry as to the lands, further than to say that they are well adapted for cultivation, especially for grain, while the yield per acre compares favorably with other sections of the State. In the report of the Land Commissioner, just made to the Legislature, there is some information regarding the new colony and the State policy of settling her wild lands, which is of interest not only to our correspondent, but to all New England readers. A letter in the *Journal* gives the following summary:—

As the result of the Commissioner's labors, a colony of 114 Swedes—fifty-eight men, twenty women, and thirty-six children—have paid their own passage from Sweden and settled on the wild lands of Maine. Seven miles of road have been cut through the forest; one hundred and eighty acres of woods felled; one hundred acres hand-piled, burnt off and cleared ready for a crop, and twenty acres sowed to winter wheat and rye. Twenty-six dwelling houses and one public building have been built.

The Commissioner says in his report that this is the first successful attempt Maine has ever made to induce foreign immigration. It now remains for the Legislature to determine whether the result shall stand as an isolated, spasmodic effort, or be the commencement of a broad, systematic policy for peopling our State and realizing our latent wealth. Maine has a larger area of unsettled land than is included within the entire boundaries of Massachusetts; and of this the State yet owns 526,-114 83 acres, of which 246,843 38 acres are settling lands. Of the Swedish immigration flowing to the United States, which in 1869 amounted to 35,000 souls, the Commissioner thinks Maine's fair quota is not less than 3,000 souls a year, which, if the common estimate of the cash value of the immigrant to the State be correct, will add more than $1,000,000 per annum to our wealth, and is the prize which Maine should strive for and win. In securing Swedish immigration for ourselves, says the Commissioner, we shall be forced to compete at every step with the Western States; and to compete successfully we have only to follow out the liberal policy inaugurated by the Legislature of 1870, the chief measures of which are two: First, one hundred acres of land *free* to every actual settler; second, advertising this fact broadcast over Sweden. With this policy Maine can shout "free homes for the homeless," as loud as the West; but Maine can never attract immigration to herself with the inducement of fifty cents, or any other sum, per acre for our lands, payable in work or any other way (her present policy), while the West. under the homestead law, offer one hundred and sixty acres of prairie land free.

The Commissioner recommends that an agent should be employed in Sweden to advertise our free farms and their advantages successfully, and that the entire enterprise at home and in Sweden should be under the direction and control of a central commission resident in Maine. If the measures the Commissioner recommends are adopted, he believes that in a few years at farthest the stream of Swedish immigration to Maine will be strong and broad enough to roll on of itself, and that not only all the public lands will be largely settled by Swedes, but they will spread over the entire State, become our farm hands, mill hands, house servants, sailors and fishermen, form an important working element among us, and add thousands to the population and millions to the wealth of Maine.

EYE-GLASSES.—The use of glasses becomes a necessity or convenience, at some time in their lives, to a large proportion of the people of civilized communities. If short-sighted, they require glasses in youth as well as in age, for distant vision. If possessing normal eyes, they need assistance, with advancing years, for seeing near objects. The comfort and safety of the eyes often depend on a proper selection of these auxiliaries. * * If any difficulty is met with in finding such glasses, the eye should be examined by some competent authority, to determine if any unusual combination of lenses is required, or ascertain the presence of disease if the difficulty in suiting the eyes arise from this source.—*Dr. H. W. Williams, in Atlantic Monthly.*

MUCK AND MARL.—The muck of our swamps supplies not only vegetable matter but a considerable amount of those valuable fertilizing materials which we purchase at a high price, in a more concentrated form, under the name of guanos and superphosphate. Muck and marl are sometimes found near each other, and should be used in connection whenever it is convenient. A compost made up of those materials, enriched by a small amount of excrementitious manure is a good fertilizer for all crops.—*Rural Carolinian.*

CLEANING WHEAT FROM CHEAT.—In the ordidary winnowing mills, put a board in the place of the riddle, by which means the wheat will be carried nearly off the screen board,

then by turning the fan right hard, the cheat being lighter, with the aid of a strong wind, will be drawn out at the second run of the grain. Wheat, run two or three times through the mill in this manner, will be cleaner of cheat, than if cleaned a half dozen times on the plan of screening out the cheat with the screen in the usual way.

For the New England Farmer.

THE NEW VOLUME.

The simple announcement of a new volume of the NEW ENGLAND FARMER is suggestive; it leads to thought upon the influence of the press, and the value and character of the agricultural branch of it.

The various ways of disseminating knowledge may be classified under three heads,—the School, the Club or Lyceum and the Press.

The first is for imparting the elements of science or laying the foundation of an education for future usefulness, and is designed for youth. The club is for more mature minds. Whether it is called debating society, lyceum or lecture, it means the same,—the gathering together of men for instruction. Before the art of printing was invented it was, next to the school, the chief means for the acquisition of knowledge, but it has lost its former influence, being superseded by the press.

The press has become the all-powerful engine for diffusing knowledge. In its daily, weekly, and monthly form it goes out to the people, reaching to those who cannot attend the school or club. It finds the farmer in the retired part of the most secluded town of his State; and it reaches with certainty the backwoods-man and pioneer in their lonely cabins; it accompanies the traveller as he journeys from country to country, and the mariner upon his long voyages; it enters every dwelling; it reaches the masses, and it does the work the school and club cannot do. It is difficult to realize all a free press is doing for Americans.

Every profession, every occupation of importance, has its journal or journals devoted to its interests. There are one hundred or more in the United States laboring for the advancement of its agriculture. They come to farmers to advise, to entreat, to warn and to encourage; they are companions, friends and counsellors. We find in them all that is said and done in the school, the club-room or lyceum; the thoughts and experience of the best minds of the country and age are collected and given upon their pages. All this, which we could not possibly otherwise obtain, comes with a regularity and certainty, that but half a century ago would have been truly astonishing, and all for an insignificant price.

At this time of the year, we are called upon to decide how many and which of these helps to good farming we will take. Among others, the NEW ENGLAND FARMER presents its claims for patronage; and here, Messrs. Editors, pardon me, if I am somewhat personal, while I give a few reasons for supporting the NEW ENGLAND FARMER.

There are many small journals of limited circulation which introduce an agricultural department to insure the support of farmers, and which possessing considerable local interest are patronized by them. There is another class conducted by and in the interest of some agricultural warehouse, seed store or stock breeder. These being somewhat showy and pretentious, and published at low rates, obtain a handsome support. However many papers of this description may be taken, it is assumed that every thoroughly interested and progressive farmer desires at least one purely agricultural journal.

1. Now, a first class paper must be located at the centre of a large population, markets and news. There must also be a breadth of territory from which to derive a support; not every county, nor the valley of a small river, nor even a whole State will give the desired patronage. The expense of a first class journal are of a necessity very heavy, and they seem to increase yearly, so much being required of a journal that intends to hold a high rank. The FARMER certainly has the advantage of location; the interests of the New England States are identical. The paper need not be half filled with matter to please one section, that will not be attractive and useful to readers in other parts.

2. A pleasing, ready writer, a mere theorizer, or one of a profound scholastic turn of mind, is not the man to conduct our agricultural paper. He should be a man of broad views, possess a large share of common sense, and have had an extensive experience in the subjects whereof he writes.

3. Editors frequently, in pointing out the excellencies of their paper, lay great stress upon the amount of original matter it contains, and some papers appear to be made up almost entirely of editorials and correspondence. These are original in what sense? In language, not ideas; the latter are borrowed or gleaned from books and other journals,—they are articles re-written. Readers of such papers will notice a marked sameness, and a want of variety. Every idea being cast in one mould, comes to the reader in one and the same dress. A greater variety in style and ideas is secured where a fair share of selections are given, with the editorials and correspondence. When editors make a few judicious selections, giving the cream of some other journal, they greatly enrich their own, and if correspondents write readable articles, why should they not appear in the author's own words?

Not the least uninteresting part of a paper is the department to collect all items and facts sent in by correspondents, and answer their numerous questions. Few readers are aware of the labor necessary to put into a readable

form letters as they are usually written. They embrace a wide range of topics, and it would require a Faculty of Professors to give the necessary answers to all; but with a good share of patience and diligent research, the work can be done in a pretty satisfactory manner, either by the editor answering directly, or by correspondents replying to each other. A multitude of facts are thus given in a condensed form, and a sort of a debating society can be carried on in this department; and often the reader can derive more information in a single evening from two or three papers than from spending five times the time and labor in personally attending meetings.

4. The typographical appearance of a paper is always to be considered. Some of the largest and widely circulated weekly papers in the United States boast of their cheapness; and they are cheap if poor paper and worse printing are evidences. Farmers generally read in the evening, after a long day of hard labor, and with lights not the best. The body being tired, the eyes partake of its exhaustion; and under these circumstances, reading with the best of print is sufficiently trying. These wretchedly printed sheets for constant reading are dear at any price.

Such are some of the more striking characteristics of a first-class paper. Those purely agricultural are chiefly for adult minds, and their mission being to impart information, to discuss seriously grave subjects, can well afford to keep aloof from all catch-penny attractions.

The advantages arising from a division of labor and thought are seen in newspaper and periodical literature, as well as in other things. The idea that all of this kind of reading a family needs can be furnished in a single paper is fast becoming obsolete. There are papers expressly for children; papers that make a specialty of illustrations; papers devoted to politics, religion and fiction, and to every branch of literature, science, art and trade, that can possibly support a journal, and why will not farmers give preference to such as are devoted strictly to their occupation?

And now, kind reader, what think you of the FARMER? Does it come up to the requirements of a first-class journal? Are not its editors eminently practical men, and its correspondents, if not always graceful with the pen, men of experience and toil? Are not its expositions of science clear? Its advice judicious? Its news free from the sensational? Its market reports minute and reliable? Is it slow to detect error, timid in exposing fraud? Has it not always endeavored to inculcate progress, and the spirit of contentment in this restless, feverish land of ours? Judge for yourselves. If it meets your approbation give it your cordial support and help increase its usefulness by increasing its circulation and its contributions. N. S. T.

Lawrence, Mass., Jan., 1871.

For the New England Farmer.

PRACTICAL SUGGESTIONS.

Neat Stock Profitable—Horses Expensive—Grass Growing Preferable to Grain Raising—Saving and Composting Manure—Muck, Plaster, Ashes, Lime and Salt—Raising Corn—Top Dressing—Sandy Acres.

There is no department in your valuable paper that I read with so much satisfaction as I do the communications of men of experience, who tell us how they manage their farms, make and apply the largest amount of manure to their land, grow satisfactory crops, and are yearly bringing up their fields to a better state of tilth and rendering them more productive. I have thought perhaps it might be acceptable to some of the readers of the FARMER if I wrote out for them some of my own experience, with a few of my own thoughts on the subject of farm culture.

I think it is best for me to keep all the stock my farm will sustain in a growing, thriving condition, and no more. Neat stock I consider the most profitable, such as oxen, cows and young stock. I put my cows to the best bulls in my neighborhood, and rely upon this means to improve and to replenish my stock, and to keep its numbers full.

A horse is a very useful animal, but expensive to keep, and unless there is reguar work for him to do to earn a living I think he had better be dispensed with, so far as profit is concerned. Hogs I have discarded. I think them unprofitable, and very filthy creatures. I can make as much manure with my calves, during the summer till they are a year old, as I can during that time with the same number of hogs, commencing with them when they are sucking pigs.

I save all the manure my cattle make that I can,—most of it under cover,—using absorbents to take up the liquid part. I think it pays to gather other materials besides what naturally accumulate around the barn, to mix and compost with the droppings of the cattle.

I have a muck swamp that I draw largely upon for this purpose. It is composed mostly of vegetable matter, and is a great absorbent. Green manure is of a hot fiery nature, full of rich, light volatile gases, and it seems to be the very article to mix with the muck. They readily combine together, and make a first rate manure, such as my lean, hungry, sandy loam plough-lands need to render them productive. Indeed, I have become so well satisfied of the rich nature of this muck, that I have reserved one side of this muck bed about one and a half acres, that I have pared off and thoroughly drained for a mowing field. It produces yearly a large burden of fine English hay. It has been top-dressed with a compost composed of cattle manure and sand loam.

I have experimented with and used in a small way plaster, ashes, lime and salt, and think favorably of them all, on some kinds of land; but in order to realize the greatest

benefit from the use of them, I believe they should be incorporated with the compost heap, where they seem to combine favorably with the other materials of the heap, in a chemical way that fits them to be taken up as food by the growing plants,—making the whole heap richer and better by their addition.

I have grown the best crops of corn by spreading manure liberally on top of grass ground and ploughing it under just before planting time,—my land being a light, warm, sandy loam,—putting a little compost, or plaster and ashes, in the hill to give the corn an early start. But for the last few years, I have turned my attention more to growing grass, and use the largest share of my manure as a top-dressing for my mowing fields. The result is less labor and more hay, which enables me to keep more cattle. Consequently I grow less corn and other grain, and I think my fields are coming up to a better state of tilth than formerly.

I have a few acres of light, warm, sandy loam land, enclosed in my mowing fields, that produce a light crop of red-top grass yearly, which would produce good crops of corn and rye and clover if liberally manured; but as yet I have not that article to spare to them, and do justice to my other fields. I have bestowed much earnest thought upon them. As they are located, I can't very well turn them out to pasture, and I don't want to let them go back again to a forest. I have thoughts, Mr. Editor, of trying your clover and plaster system on them, that you recommended in the FARMER a few months ago; by turning them over with the plough soon after the grass is mown off in haying, let them summer fallow awhile, then reseed, and sow them to winter rye, putting on a top dressing of about three hundred weight an acre of plaster, three bushels of ashes, two bushels of salt, one cart-load of green manures, and one cart-load of good swamp muck well mixed and composted together, sowing it broad-cast with the hand.

ROYAL SMITH.

Millington, Mass., Jan., 1871.

REMARKS.—We shall look with interest for an account of the proposed experiment.

GREEN FEED FOR COWS.

At the late Dairymen's Meeting in Utica, the subject of green feed for cows was discussed. Mr. Harris Lewis of Herkimer, urged upon dairymen the importance of taking a piece of land convenient to the barn, say one acre for every dozen cows, underdrain it, plow it deep, enrich it as every dairyman has the ability to enrich it, and early in the Spring seed it with a general assortment of such of our best grasses as mature about the same time. Land thus prepared and put in orchard grass will, as long as proper fertility is maintained, produce each season four cuttings, two feet high. It should be cut just before or at least as soon as the blossoms appear. If left, even for a short time thereafter, it loses its great value as an inducer of a liberal flow of the best quality of milk. At the head of all forage plants for dairy cows, in connection with pasturage, he placed lucern, provided the soil and culture are suited to its habits. The soil should be a deep, rich gravel, or sandy loam, naturally underdrained. As the roots strike down to the water, and prefer to go down eight or ten feet to reach it, no kind of artificial underdrainage would be of much service after one year. The roots would enter any drain where water could enter, and soon fill up the best-constructed artificial drain. Again, lucern will monopolize the soil upon which it grows, or soon quit it. If the soil is clean and well-prepared it may be sown broadcast (16 pounds per acre), and thus sown it can be fed with less labor than when put in drills. Corn he regards as worthless, its cost in most cases exceeding its actual value. First in importance is lucern; second, orchard grass; and third, common meadow grass, all of which should be fed before they pass out of blossom. In conclusion, he remarked that all forage plants are better for being wilted or partially dried. When this cannot be accomplished, on account of the weather, he had found it advantageous to feed in connection a small quantity of hay.

Mr. Farmington of Canada, had sown Dent corn very dense, and always with excellent results. So had Dr. Wight of Oneida; and Mr. Seymour remarked that he had used corn as a forage crop for many years, and never doubted that he had been well repaid. He had sown it broadcast, three or three and a half bushels of Western or Dent to the acre, and he doubted the possibility of profitably placing any other plant in its place. As for meadow and other grasses, he questioned if they would endure more than one or two croppings per annum.

Mr. Schermerhorn of Oneida, had realized benefit from soiling with corn. Fed to cows on a small lot, he so enriched the soil that he was able to get a large crop the second year, without more manure. Mr. Ruggles of New Jersey, said the people of the northern section of his State sow the eight-rowed yellow, and would not willingly give up its cultivation for forage. Mr. Chapman of Madison, sowed his first crop of corn for this purpose 30 years ago, and had kept up the good practice ever since, raising five consecutive crops on the same ground without manuring. If not allowed to ear—as it should not be—it does not exhaust the soil to any great degree. Experiments of his proved that cows deprived of corn fodder not only shrunk in their mess, but that less cheese was made from the same bulk.

Mr. Dick of Erie, had found that he could get more milk from sowed oats than from corn, but that the quality was inferior. Mr.

Platt of Clinton, knew two dairymen in his vicinity, having the same number of cows, whose bill of delivery of milk, on August 1, showed a difference of 3,500 pound. One of them fed his cows sowed corn after that period, and the other did not. The former, whose bill was the smaller on August 1, gained the 3,500 ponds and 500 more before September 19. He considered the experiment a definite one. Other testimony bearing in the same direction was given by various members, and finally, on motion of Mr. Arnold of Tompkins, it was "resolved (and this resolution was passed with scarcely a dissenting voice), that in the opinion of this Convention, corn is a valuable product for the dairy farm, and that we commend it as a forage crop."

RAISING PIGS.

A farmer in Holt County, Mo., favors me with a description of his piggery and his mode of feeding hogs. He is young in the business, but seems to have embarked in it with much spirit and energy. He says: "In 1860, I bought and tried to fatten 300 hogs. Gave them all the corn they would eat, broad wallowing pool, and free access to clear water. I sold them at 5½c. per lb., net. I bought them too fat. The corn fed to them netted me 17 cents per bushel, while I sold the balance of my corn at the crib for 50 cents per bushel. This 'salted' me from hog feeding until October, 1869."

Without knowing the fact, I should suppose the trouble was not in buying them too fat, but in paying too much per lb. for them.

"In October, 1869," he continues, "I went into the business again. I bought 20 sows, and 60 pigs and shoats. During the winter, 60 pigs were born. In the spring I had not 80 left, all told! In March and April, 60 more were dropped, of which 30 remain—balance dead. Have had 80 pigs within six weeks—20 dead, and dying daily. I intend to try further. Will have 40 sows to drop their pigs next spring.

This seems bad luck, but I am glad he is not discouraged. When I first commenced to turn my attention to pigs, I had, though on a much smaller scale, quite as "bad luck." I had 3 sows that dropped their litters one night in the yard, and lost nearly every pig—as I deserved to do. I have now some 50 pigs, and by giving them careful attention, plenty appropriate food, with warm, dry and clean pens, I anticipate no trouble. The last three sows produced 30 pigs, and I saved every one. I know that it is a general impression that you cannot keep a large number of breeding sows on one farm; but I cannot see why, *provided* each sow gets as good treatment as she would if she was the only pig on the farm. If this cannot be done, then do not attempt to keep them, for, as a rule, farmers who keep only one or two sows, do not treat them any too well.

There is one thing that is very important: We should know exactly when we are to expect the arrival of the little ones, and make due provision for their comfort beforehand. Pigs are remarkably sensitive to cold winds. They must have warm, dry, well-ventilated quarters; and my rule is to have the pens cleaned out *every day*, just as regularly as we clean out the horse stable. Why should they not be? "It is too much trouble, and will not pay." This is a great mistake. In the first place, if done every day, it takes only a few minutes' time to remove the soiled litter and shake up the bed; and if it pays at all to raise pigs with the present average rate of mortality, it will certainly pay if we succeed in saving the entire litter. I am inclined to think that, taking the country through, from one-third to one-half of the pigs die—and this through sheer neglect and mismanagement. One of my neighbors, who is a very good farmer, and takes capital care of his cows, keeps his pigs in a pen covered at one end with some straw, thrown on rails. This is very well. Though open in front, it does afford *some* shelter. But the pen is built on the side of a building, and *all the rain from the roof comes pouring into the pen.* He "did not believe it paid to feed pigs any way," he said, and I presume he spoke from experience.—*J. Harris, in Am. Agriculturist.*

DOES SUBSOILING PAY?—In answering this question, the *Rural Carolinian*, among other things says:—

"Some soils will hold water like a pan, some, the water will percolate through and go out at the base of the hill. Not only the kind of soil, but the peculiarities of locality should influence our decision on this subject. There are localities where the surface soil has been exhausted, when eight or ten inches below, you may strike a soil as good or better than the original mold on the surface. Here, I say, by all means, subsoil, and not only subsoil, but bring a portion of the subsoil to the surface, if possible; but if you have two inches of soil and a pipe-clay substrata, subsoiling can do no good, for in a wet season it will hold too much water for the crop, without subsoiling. What you now want is thorough draining, close and deep, with main trunk as an outlet."

A HERKIMER DAIRYMAN.—The Utica *Herald* says that Nicholas Smith, of Herkimer county, N. Y., has made as high as 14,200 lbs. of cheese, shipping weight, in one year, from a herd of twenty cows. He makes his milk up at home, and sells for the highest prices paid in Herkimer market. He sells every fortnight, thus saving shrinkage. He also keeps the best cows and none but the best; and slops them a little in the spring and at times of drought, and does not overstock

his farm. His cows do not come in early, and he has juicy, early cut hay to feed them from the time of calving until they are turned to the pasture.

EXTRACTS AND REPLIES.

A BIG FARMERS' CLUB.

Brother farmers, we cannot do without our NEW ENGLAND FARMER for many reasons; but I will mention only two,—its "Market Reports," and its "Extracts and Replies." Notwithstanding our hands are heavy and our pens not accustomed to writing "printer's copy," let us all meet, and not be bashful, in "Extrcts and Replies," until the FARMER becomes the organ of a great New England Farmers' Club. Never mind the poor spelling and worse grammar. Let the editors do the finishing off, while we do the blocking out. I often see articles I would like to reply to, but not being a *writer*, I never have done so. I mean to, hereafter, and never mind the stamp, although it looks a little like begging notoriety, but it is information we are in pursuit of.

CHURNING CREAM.

A week or two ago a member of the Club wanted to know the reason his butter would not come. I have seen cream churned so fast when first put in the churn that the butter came, but being a little warm, it was dispersed instead of gathered. In such case, a lump of butter is required to form a nucleus for gathering the new particles. Cream should not be churned too rashly in gathering, nor in fact at any time.

COLORING BUTTER.

To color butter, have every fifth cow an Alderney grade, with plenty of meal. Corn and oats ground together make meal good enough for my cows, as I have wintered a herd of cows on it with a little straw. It was not expensive wintering, either, costing $10.50 per head for grain. I could not figure the value of the manure per ton of feed, as closely as some of our *oil meal* feeders can. My object was to get them through the winter in good condition for milking another season, and I succeeded tip top.

FILM ON EYE OF OX.

Having had considerable to do with cattle for a few years back, I have a good many remedies on hand which, having tried, I know are all right; and will close by giving a cure for a film on an ox's eye, caused by the lash or other injury. *Let it alone severely*, and I will warrant a cure, and your ox will not become foolish every time you take a chew of tobacco.

I have written thus much with the mercury 16° below zero, *in the shade*. If it is worth using, use it; if not the sheet of paper is worth at the rate of three cents a pound, is n't it? B. T.

Addison County, Vt., Jan. 20, 1871.

REMARKS.—The new member from Addison will occupy one of the front seats in the Club-room, though it may look "like begging notoriety" to come forward to his place. Look at farmers' associations all over the country, see who do the talking and managing, and then tell us who are "begging notoriety!" Look at farmers' interests in legislatures and congresses, as contrasted with those of manufacturers, railroad companies, importers, &c., and tell who are there "begging notoriety;" who there do not "mind the stamps!" Until farmers get rid of this chicken fear of "begging notoriety;" until they pluck up courage enough to manage their own clubs and societies, to write their own letters, and,—begging pardon of "B. T.,"—of signing them with their own names; to buy their own books; to make their own speeches; to choose their own officers, and to attend to their own interests,—let all complaints about politicians, monopolies, fast men and book farming "be reserved for a more appropriate occasion." The difference between "come, boys," and "go, boys," is understood on the farm; and the same difference will sometime be recognized in matters of "notoriety."

COMPOSTING MUCK.

I have had the past autumn quite a large amount of muck dug out, which lies in piles. I wish to know how I can compost it in the spring, so that it will be profitable to apply either as a top-dressing on dry, rather gravelly soil, or to ploughed ground, on which to sow some kind of a crop for fodder, as I find in this locality that raising stock and making butter are more profitable than raising corn.

In regard to compost, I frequently see statements comparing compost with stable manures, without giving us the least idea how the compost is made. I have heard men lecture an hour and use no more argument than they might have done in fifteen minutes. What we farmers want is practical information. We want to know what will enrich the soil at the least expense, not dissertations on the question whether we shall grow corn in preference to buying it, or any other special crop, as our location, soil, &c., will determine that. L.

Winchendon, Mass., Jan., 1871.

REMARKS.—There is probably full as much difference in the "muck" of different localities, as there is in the soil of different farms. The *soil* of the Miami valley in Ohio, has produced large crops of corn annually, without manure, for some sixty years in succession, with no perceptible diminution in fertility. Will all "soil" do that? Will the "soil" of your farm do it? Farmers recognize a difference between soils. They do not expect the same results from "soils" of hungry sand, loose gravel, light loam, heavy loam, clay, &c. But somehow there seems to be an impression that muck is muck, anyhow, and that what one man's muck does every man's muck ought to do.

Suppose that Mr. A has on his farm a sort of Miami valley muck,—a mass of decomposed vegetable matter, comparatively free from all noxious acids,—and his experiments convince him that "muck" is almost equal to barn yard manure. He publishes a statement to that effect, which induces farmer B to dig and haul a lot of his muck,—black sand, with but little vegetable matter. He fails to receive the promised benefit, becomes discouraged, and says hard things about agricultural papers and agricultural writers in general, and muck puffers in particular. He tries it in various ways, and *he* knows there is no virtue in "muck." Now, may not both these men be right in everything except in the use of the word *muck?* They applied that word or name to different things, and naturally enough arrived at different conclusions.

Hence it is necessary to come to some conclusion as to what the word "muck" means. Webster's opinion is that it means "a mass of decaying vegetable matter." Worcester says, "a substance, as dung, straw, &c., that is moist or in a fermenting state." In England the word is applied to green manure. And with the title "*Muck Book*," Mr. D. J. Browne published a book some thirty years ago which treats of all kinds of *manures*.

But if the farmers of New England were to make a dictionary, what would be their definition of "muck?" Would not the common idea be expressed by saying, "Any dark-colored substance found in low wet places." It may be brook sand, colored by the oxide of iron or some "sour stuff;" it may be earth washed from the surrounding hills, and mixed with a small amount of vegetable matter; it may be nearly pure vegetable matter, the remains of trees, water grass and other plants; or it may possibly be composed largely of the shells of minute aquatic animals.

However composted, therefore, different kinds of muck will operate differently when used as a fertilizer. Generally it is not advisable to apply crude muck directly to the soil. Farmers call it "sour." The books say it contains acids injurious to vegetations. Muck needs to be mixed with something that will neutralize these acids and put it in a condition to be "compared with manure."

Our correspondent asks how to do just this thing next spring with a lot he has lying in heaps. Mixing it with the droppings of cattle, horses and hogs, both solid and liquid, especially the latter, is the first and best way of composting. Then the privy will make a large pile properly managed. So will the sink spout and waste water from the kitchen. Mr. Ames, of Wilmington, Mass., obtains the salt and brine in meat and fish barrels from stores, and mixes four barrels of it and four casks of slacked lime with five cords of muck, overhauls twice, and gets what he thinks a cheap and good manure. Dr. Nichols says that fresh peat allowed to ferment in contact with lime is changed into new substances capable of nourishing plants. But still he thinks its chief use is as an absorbent for the liquid manure of stock, so generally lost; but which he says is about equal in value to the solid portions.

RED WATER IN HORSES.

Will you or any of your correspondents please inform me of a remedy for the red water in horses?

Marlow, Mass., Jan. 16, 1871. C. W.

REMARKS.—Bloody urine is generally thought to be the result of some strain, blow, or violence to the system. Yellow water is an indication of liver complaint, resulting in jaundice. We should endeavor in the first place to ascertain the cause or location of disease. If the bloody urine is the result of a strain, good care and nursing should be tried in preference to much dosing. We advise you to get your family physician to examine your case. Disorders that affect the urine are similar in man and beast. Perhaps rubbing the back and loins to produce counter-irritation might be beneficial. Messes of potatoes or any green food may be beneficial, if the bowels are at all costive.

SHEEP PULLING WOOL.

Can you or any of your correspondents tell me the cause of my sheep pulling their wool, and any preventive? They are a good flock of Cotswolds and South Downs, well fed and as well cared for as I know how. Will getting too fat cause it?

YOUNG FARMER.

East Greenwich, R. I., Feb., 1871.

REMARKS.—Probably the wool is pulled out by the sheep in their efforts to allay some irritation of the skin,—in other words, in trying to scratch themselves. The itching may be caused by ticks, scab, &c., or by some mild cutaneous disease caused by high feed, bad ventilation, want of green feed, or by cold weather. The remedy should be adapted to remove the cause of the trouble. Tobacco wash is a very common remedy. Dr. Randall recommends an ointment composed of lard, two pounds; oil of tar, half a pound; sulphur one pound. Gradually mix the last two, then rub down the compound with the first. Apply a little of this ointment on the head of the animal. Part the wool so as to expose the skin in a line from the head to the tail, and apply with the finger a little of the ointment the whole way. Make a similar furrow and application on both sides, four inches from the first, and so on over the body. A less thorough application in most cases of slight skin diseases would probably be sufficient.

CABBAGE WORMS.

I have been troubled the past season with green worms on my cabbages, and having seen considerable in the FARMER relative to their origin, I give it as my opinion that they are produced by the common yellow butterfly, as I saw one alight on a plant and deposit two or three eggs and then fly away, and return several times and deposit more. But as the plant was removed before they hatched, I don't know what the result would have been.

Alexandria, N. H., Jan. 16, 1871. I. L. P.

REMARKS.—The *Pieris rapæ* butterfly is light colored, and may have been mistaken by you for the common yellow butterfly; or, if not, the yellow butterfly may not have laid the eggs you found on the cabbage. We suppose the butterfly that deposits the eggs that produce the new cabbage worm is just as well known to naturalists as is the robin or swallow. The common yellow butterfly must have learned new tricks within a few years past if she is the mother of the fearfully destructive cabbage pest.

SIGNS OF PREGNANCY IN COWS.

Under this caption, I notice the remarks of "D. C." In regard to his cows, he does not say which of his cows he is in doubt about. If it is the Jersey, I should not wonder if he was unable to tell whether she was with calf or not. They are thin built, and their calves are generally small. I have a three-fourths Jersey cow, a valuable animal that should, according to our reckoning, have come in the first week in December. She has not been in heat since last taken away,—as our figures make it,

more than ten months. She has gradually dried off, and does not now give more than two quarts of milk in a day, although we keep her well. She is in good condition, feels well and eats well. She is not large, in fact does not look to the casual observer like a cow with calf; and yet we still think she is. She has been kept in the stable most of the time since I have owned her, about a year and a half, so that if she had aborted we should be very apt to know it. My information and knowledge in regard to cows that have aborted, is that they are very apt to get crazily in heat, and that, too, quite often; at least this was true of one of my own, a few years ago, and I have heard that this was true of others in this vicinity. Do cows often go much more than nine months with their young? J. M. C.

Franklin County, Mass., Jan. 28, 1871.

REMARKS.—The period of gestation is generally stated at two hundred and eighty-four days, which has been known to be extended to three hundred and twelve, or more.

NO TROUBLE IN CHURNING.—MILLET FOR FODDER.

In reply to the question, What ails the cream? I would answer,—nothing, very likely, ails the cream, but the trouble is in the place you keep it. I have a cupboard near my chimney where our milk is kept, which is always warm. Our butter comes in about the same time that it does in summer, and has the same rich taste.

Please state in the FARMER the merits of millet as a crop for fodder. L.

Winchendon, Mass., Jan. 9, 1871.

REMARKS.—Millet has been recommended as a substitute for fodder corn, but practical farmers in our section persist in raising corn instead of millet.

DEATH-LIKE COLD SWEATS—CAUSE, EFFECT AND CURE.

I had a serious attack of bilious fever which completely prostrated me for a long time. After the fever broke, deathlike cold sweats set in about every eight hours. So severe were they that I was brought to death's door. When the sweats were on, the excretion thrown off by the cuticular pores stood out on the body in balls as large as small white beans, and had a very offensive smell. In twenty minutes I would be lying in a pool of wet, soaking through sheets, English blankets, feather bed and mattress.

Cause.—A sudden check to the system, by remaining in a deep ravine after sun-set, while sweating.

Effect.—As stated above.

Cure.—Three large Asafœtida pills a day, and common garden sage tea, *strong*, drank at bed time *cold*, in quantities of from half a pint to a quart, if it can be swallowed or gulped down.

The first night the sage tea was taken, the whole system seemed to be undergoing a regular metamorphosis, and battling for victory over the disease. I got no sleep that night, and only one sweat in the twenty-four hours. The next night I took another good allowance of the sage tea, and had a good comfortable night's sleep, and no sweat at all. I drank a little of the sage tea water during the day, sweetened with honey, continuing to take the tea and pills, and in a week was considerably better. Some friends coming to see me, I forget to take the sage tea at night. I sorely suffered for the neglect, for that night I was again deluged in perspiration, but the smell was not so bad. I continued after that to take the sage tea as regular as I did my meals. The sweats entirely left me, my appetite increased, and I daily gained strength. Any of your readers who wish to ask me for further information, I shall be happy to answer their inquiries, accompanied with a ready directed, stamped envelope for reply. JOHN WHATMORE.

Bridgenorth Farm, Dunleith, Ill., 1871.

REMARKS.—Happily, few of the readers of the NEW ENGLAND FARMER have any experience with the diseases peculiar to Illinois and other Western States, but to that few, the foregoing may be of value. The writer of these remarks has been prostrated by the "death-like, cold sweats," described by Mr. Whatmore, which were so offensive to himself and others that under-clothes and bed had to be changed often. If these directions shall help a single invalid to a "good, comfortable night's sleep," the writer and printer of this article will be well repaid.

PREPARING FOOD FOR STOCK.

Much has been written on this subject, and your editorial of a few weeks since prompts me to advance an idea in regard to a process by which, it seems to me, a greater gain, with far less expense, could be obtained than by any of the processes you described.

Your correspondent, "K. O.," informed me that a man near New Bedford had cut grass and packed it away in its greenest state in new oil casks, and that it had kept perfectly sweet and good, and was eaten with relish the next summer,—a year after—by cattle in pasture. This was only an experiment; but could not grass be packed away in bins made air tight, in considerable quantities, to be fed to milch cows in winter? Here you would have the pure article—not simply an imitation; while the cost of securing the hay crop would be greatly reduced, and the required room for storage vastly lessened.

Such bins could be easily and cheaply constructed in a variety of ways. The grass would soon be settled very solid, and the little air let in for a few moments while getting out a day's foddering would probably be harmless.

Everybody knows the great value of green grass for milch cows; and if the process has not been thoroughly tried, it would seem to me that it would be well for persons interested in it to make the required experiments. If it has been tried we should like to learn the results of such experiments. The grass should be cut when entirely free from external moisture, not too soon after heavy rains, and, of course, no moisture should be allowed to come in contact with it.

I had a lot of corn stalks a year old which I have been feeding out recently. They were badly injured while being secured, and were not relished a year ago. I have filled my feed box with these stalks, uncut, and poured on boiling water; then covered tight, and after standing twelve hours they were eaten up clean with avidity. No salt, grain, roots or anything else to give relish was used.

In regard to the use of salt for animals. A physician, who has kept swine and raised pigs for many years with excellent success, tells me he has never fed a particle of salt, and that he never gave any to his horses, one of which was a most valuable animal, in his hands, for several years. F.

Franklin, Mass., Jan., 1871.

TO KILL LICE ON CATTLE.

Two parts of kerosene oil, and one of any kind of cheap grease, mixed together and applied to the parts infested by the vermin, will make them "laugh" out of the other corner of their mouths. Give the cattle some corn meal twice a day to keep their bowels regular; comb their hair in the right direction—I have some fears it is growing toward

the head on "Constant Reader's" cattle. If this does not kill them, your lice in Maine are different from those in Vermont. G. M.

Bristol, Vt., Jan., 1871.

Lice cannot live where there is goose grease. Work the grease thoroughly into the hair and on to the skin where the lice live, and in a short time they will be on the ends of the hairs looking for the jumping-off place. One thorough application and the work is done. W. M. T.

East Marshfield, Mass., Jan. 3, 1871.

BUTTER AND MILK FROM ONE COW.

I saw in your last week's paper a notice of a two-teated cow making over 300 pounds of butter from March 20, 1870, to January 6, 1871. I have read the FARMER for eighteen years, and have never contributed anything as yet, but I cannot stand this. I have a cow that calved the 20th of last March, and from that time till the 1st of January, we have made 280 pounds of butter. Beside we have sold 217 quarts of milk, and raised a heifer calf. Also, we have used what milk we have needed for a family of five. But fortune has favored her with four teats. J. T.

Williamstown, Mass., Jan. 23, 1871.

HORSE TALK.

First, I would suggest to the fast horse men, who wish for an animal to bet and gamble on, that they breed their mares to antelopes or other spry-footed beasts; and, secondly to the farmers of New Hampshire, who are behind those of most other States in breeding good horses, that they make an effort to procure better brood mares. When the season comes and you meet a man that thinks of raising a colt from a mare that weighs less than 1000 pounds, try to discourage him if possible; if not, tell him to go fifty miles, if you know of a larger horse at that distance. If the farmers of our State would form a society for bringing among us half a dozen or more mares, weighing some 1400 pounds, a class of colts might be raised that would be useful on the farm, and profitable to those who raised them.

Plymouth, N. H., Jan. 16, 1871. F.

EIGHTY-FIVE YEARS ON THE SAME FARM.

Mr. Salathiel Bump, of Wallingford, Vt., who is now eighty-five years old, has always lived on the farm he now occupies. He can recollect when Troy, N. Y., was the nearest market or trading place, and when there were but four buildings where the village of Wallingford now is. With no tools but a saw, gimlet and jack-knife he made a clock; afterwards he made one that showed the day of week and month, as well as hour and minute, without a model. While able to work, his farm was kept in good order, but as the infirmities of age disabled him he was obliged to let portions of it, until it produced only enough for four cows and one horse. Under the management of his son, Hiland Bump, it has been improved, and now ten cows and a horse are kept upon it. There are now representatives of four generations—son, grandson, and great grandson—in the same family.

Wallingford, Vt., Jan., 1871. ORRIN HAGER.

CRIBBING HORSES.

I would say in reply to friend Cobb's inquiry, that I once run a fine saw between the teeth of a bad cribber, which did not cure him. I would not try that experiment again. I am inclined to agree with the editor of the FARMER that the cause is mostly a habit, the result of carelessness on the part of the attendant. I once knew a colt to contract the habit before he was a year old. My remedy is a strap, crossing the head between the ears, buckled around the throat. If this does not effect a cure, take a three-cornered piece of zinc, or thin sheet iron, with two holes through the wide end, slipped on to the strap so that the point will prick the throat between the jaws at every grunt. F.

Plymouth, N. H., Jan., 1871.

FOOT AND MOUTH DISEASE.

We have had the Epizootic Aptha in but one herd in this town, and they have got entirely over the disease, without much loss, but some trouble to the owner. It was taken from an ox frame where a pair of cattle from Brighton had been shod. Owing to the energetic efforts of our town officers and the prudence of our citizens, we hope to prevent the spread of the disease. S. C.

South Scituate, Mass., Jan. 24, 1871.

SEASON IN WASHINGTON CO., VT.

Thus far we have had a very open winter,—not more than ten or twelve inches of snow at any time. The 12th it commenced to thaw, and continued to until the 17th. The 16th was a very rainy day and consequently we shall have to resort to wheels until more snow falls. The weather has been very favorable for stock, and in this vicinity it is wintering well. I can see a marked improvement in the management of stock within the last five years in this part of the county. There are few farmers that have not one or more animals that he is proud to show, and many of them whole stocks.

Sheep are not extensively kept at present, as most farmers have got tired of waiting for the good time coming, that was looked for a few years ago. But one thing is noticeable, that is, the few that remain are being greatly improved, especially as mutton sheep. The hogish nature of swine has taken a step decidedly down grade, this way, within the last few months. But possibly the cattle disease will improve the market for pork.

We are soon to have good railroad facilities in this part of the county, as the Lamoille valley will be on one side and the Montpelier and Wells river on the other. Some are pleased and some are not. One man in Hardwick, to get rid of the bonded tax of the town, sold out a good farm with new buildings, and the same farm has since been resold for two thousand dollars advance.

Cabot, Vt., Jan., 1871. S. B. BLODGETT.

OFFICERS OF AG'L SOCIETIES.

EAST SOMERSET, ME.—*President*, Eleazer Crocker, St. Albans; *Secretary*, Thos. Fuller, Hartland.

WALDO CO., ME.—*Pres.*, W. C. Marshall; *Sec.*, Geo. E. Brackett.

PARKMAN AND ABBOTT, ME., CLUB.—*Pres.*, Wesley Harrington; *Sec.*, L. E. Hovey, Parkman.

KENDUSKEAG, ME., CLUB.—*Pres.*, E. F. Nason; *Sec.*, T. P. Batchelder.

SOUTH NEWBURG, ME., CLUB.—*Pres.*, J. P. Rigby; *Sec.*, O. M. Bickford.

CASTLE HILL AND MAPLETON, ME., CLUB.—*Pres.*, John Waddell; *Sec.*, E. Tarr.

PROSPECT AND STOCKTON, ME., CLUB.—*Pres.*, Lewis Mudgett; *Sec.*, N. P. Staples.

MT. VERNON AND VIENNA, ME., CLUB.—*Pres.*, Sewall Eaton; *Sec.*, P. J. Cogswell.

CORINTH, ME., CLUB.—*Pres.*, John Thissell; *Sec.*, John Thomas.

LAMOILLE COUNTY, VT.—The Lamoille County Agricultural and Mechanical Society met in Morrisville, January 3d, and elected the following officers: *President*. C. S. Parker, Elmore; *Vice Presidents*, G. F. Small, Morristown; Orson Hadley, Hyde-park; *Secretaries*, Isaac N. Le Baron, Morristown; H. Harris, Stowe; *Treasurer*. C. W. Fitch, Morristown.

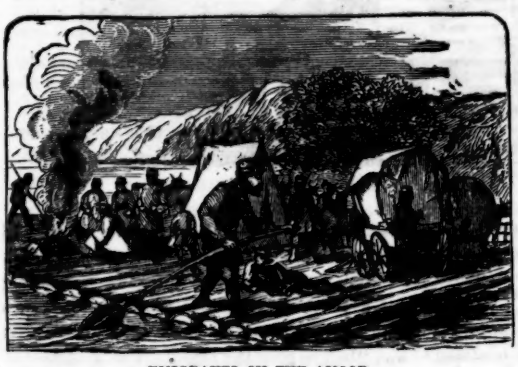
WEYMOUTH, MASS.—Annual Fair of the agricultural and Horticultural Society on the 19th and 20th of Sept., 1871. W. Dyer, Secretary, South Weymouth.

LIFE IN ASIA.

We noticed, some weeks since, the work from which the following extracts are made,* and more full examination has fully confirmed our first impressions as to the interest of the book. The country through which Mr. Knox travelled is out of the ordinary route of travellers, and the people and customs, and the scenery which he describes are therefore new to the reader, and the knowledge imparted the more valuable.

Emigrants on the Amoor.

Every day we saw rafts moving with the stream or tied along the shore. They were of logs cut on the Amoor, and firmly fastened



EMIGRANTS ON THE AMOOR.

with poles and withes. An emigrant piles his wagon and household goods on a raft, and makes a pen at one side to hold his cattle. Two or three families, with as many wagons and a dozen or twenty animals, were frequently on one raft. A pile of earth was the fire place, and there was generally a tent or shelter of some kind. Catttle were fed with hay carried on board, or were turned ashore at night to graze.

Some rafts were entirely laden with cattle on their way to market or for government use at Nicolaievsk. This is the most economical mode of transportation, as the cattle feed themselves on shore at night, and the rafts float with the current by day. A great deal of heavy freight has been carried down the Amoor in this way, and losses are of rare occurrence. The system is quite analogous to the flat-boat navigation of the Mississippi before steamboats were established.

Gilyak Village.

In ascending the Amoor, the author visited a native village, which he thus describes:—

We saw many Gilyak boats descending the river with the current or struggling to ascend it. The Gilyaks form the native population in this region and occupy thirty-nine villages with about two thousand inhabitants. The villages are on both banks from the mouth of the river to Mariensk, and out of the reach of all inundations. Distance lends enchantment to the view of their houses, which will not bear close inspection.

Some of the houses might contain a half dozen families of ordinary size, and were well adapted to the climate. While we took wood at a Gilyak village I embraced the opportunity to visit the aboriginals. The village contained a dozen dwellings and several fish-houses. The buildings were of logs or poles, split in halves or used whole, and were roofed with poles covered with a thatch of long grass to exclude rain and cold. Some of the dwelling houses had the solid earth for floors, while others had floorings of hewn planks.

The store houses were elevated on posts like those of an American "corn barn," and were wider and lower than the dwellings. Each storehouse had a platform in front where canoes, fishing nets, and other portable property were stowed. These buildings were the receptacles of dried fish for the winter use of dogs and their owners. The elevation of the floor serves to protect the contents from dogs and wild animals. I was told that no locks were used and that theft was a crime unknown.

The dwellings were generally divided into two apartments; one a sort of ante room and receptacle of house-keeping goods, and the other the place of residence. Pots, kettles, knives, and wooden pans were the principal articles of household use I discovered. At the storehouses there were several fish-baskets of birch or willow twigs. A Gilyak gentleman does not permit fire carried into or out of his house, not even in a pipe. This is not owing to his fear of conflagrations, but to a superstition that such an occurrence may bring him ill luck in hunting or fishing.

It was in the season of curing fish, and the stench that greeted my nostrils was by no means delightful. Visits to dwellings or magazines would have been much easier had I possessed a sponge saturated with cologne water. Fish were in various stages of preparation, some just hung upon poles, while others were nearly ready for the magazine. The manner of preparation is much the same as in Kamchatka, save that the largest fish are skinned before being cut into strips. The poorest qualities go to the dogs, and the best are reserved for bipeds.

*OVERLAND THROUGH ASIA. Pictures of Siberian, Chinese and Tartar Life.—By Thomas W. Knox. Hartford: Am. Publishing Co.; Boston; G. M. Smith & Co., 129 Washington St.

GILYAK VILLAGE.

Though the natives do the most of the fishing on the Amoor, they do not have a monopoly of it, as some of the Russians indulge in the sport. One old fellow that I saw had a boat so full of salmon that there was no room for more. Now and then a fish went overboard, causing an expression on the boatman's face as if he were suffering from a dose of astonishment and toothache drops in equal proportion.

A LARGE BLACKBERRY PATCH.

No blackberry, excepting the wild one of the fence sides and pastures, so far as our knowledge goes, has yet been found which is sufficiently hardy to ripen its fruit in the open air in and north of the State of Massachusetts. We have transferred the *wild one* into the garden and obtained tolerably fine fruit from it; not large, but of very high quality. It did not prove sufficiently prolific, however, to make its cultivation an object. If a high cultivation were persisted in for several years it might result in producing an abundant bearer of excellent fruit.

The variety known as the *New Rochelle*, or *Lawton*, is a splendid fruit, and is becoming quite common in the markets of New York city and those south of it. In the region of Boston, the warm season is not long enough to ripen it. We have had vines loaded with the largest and finest-looking fruit we ever saw, early in October, when no frost had touched it. It was in perfect shape, as black as coal, and as sour as vinegar! In rooting out a patch by Irishmen, loaded with such fruit, no one was found who would eat it. It was "bad to give the pigs." The bunches of this fruit surpass those of any other blackberry which we have seen. The berries are long, thick in diameter as compared with other varieties, and are clustered upon long stems, so that a few bunches only would be required to fill a quart measure. The attempt to ripen them by sheltering hedges, and by other means, did not succeed, and we were most reluctantly obliged to give them up.

The *Dorchester*, introduced by the late Capt. Lovett, of Beverly, Mass., is nearly equal in size to the New Rochelle, of a more elongated form, grains rather smaller, somewhat sweeter, and produces large crops of high-flavored fruit, and is a vigorous grower on rich soils. The fruit is of a deep, shining black. When highly cultivated it runs to vines extravagantly, which are apt to be winter-killed, in part, and become fruitless. Planted on a lighter and poorer soil, they make less vines and are more fruitful with us.

But we intended to say something of the *little* blackberry patch of Mr. John S. Collins, near Camden, N. J. It comprises sev-

enty-five acres, and all in profuse bearing. It was visited by the editor of the *Practical Farmer*, who states that on the day of his visit, 7,000 quarts had been picked; a full day's work for the persons employed would be 14,000 quarts, which were fully expected the following day. Thousands of the bushes were bending nearly to the ground under their weight of fruit. The rows were eight and one-half feet apart, and the plants four to four and one half feet apart in the rows. No weeds were to be seen. By far the largest portion of the vines were the variety known as *Wilson's Early*. It differs from the Lawton in being ripe when black; is of good size, melting and juicy, which, with its *earliness*, being the first in the market, and treading closely on the heels of the raspberry, always secures the best price.

Mr. Collins was receiving twenty cents per quart, wholesale price, at the time, which, with 14,000 quarts, makes the round little sum of $2,800 for one day's picking! Price paid for picking was one and one-half cents per quart, and the average is one hundred to one hundred and fifty quarts per day to each hand, but sometimes running up to two hundred quarts per day.

We shall be glad to learn whether the Early Wilson is sufficiently hardy for the climate north of Boston.

The *Kittatinny* is said to be hardy, productive, and the fruit very rich. Not yet fruited by us. *Newman's Thornless* has the merit of not pricking the hands when gathering the fruit, but we know nothing of its merits otherwise. It is said, however, to promise well.

The *Sable Queen* originated in Essex County, Mass., and is spoken of in the highest terms, as a good grower, fruit of surpassing excellence, and the vine hardy enough to resist the cold of New England winters.

A perfectly ripe blackberry, of a good variety, is one of the best of our fruits. As the peach stands at the head of the larger fruits, so the blackberry stands in regard to the smaller ones. We have never yet found a person who did not like the blackberry. Excellent as it is in its fresh state, it is no less so when properly preserved. It is also freely used as an alterative for the bowels.

—England uses 86,000 tons of bone-dust and 210,000 tons of guano a year.

For the New England Farmer.

"BUTTER MAKING."

I have read with much interest the many articles upon butter making that have appeared from time to time in the columns of your valuable paper, and I must say that, according to my experience, Carrie has come nearer the *common* method of making butter than any other. I am not a farmer's wife or daughter, and am *honestly* afraid of a loose cow; but I know how to make butter, for all that, having made more or less for eighteen years. During that period we have had quite a number of cows, and I have come to the conclusion that the quality of the butter depends in a great measure upon the cow. Of course other things must be taken into consideration. Every woman who has the care of milk and is blessed with a medium share of common sense, knows she must skim her milk before the cream moulds on the top, or the milk becomes so sour that it wheys; and that she must churn before the cream smells old in summer or grows bitter in winter. But one may take the very best care of the milk, cream, and butter and then have butter of a very inferior quality, and even so poor as to be unfit for table use. That I *do* know. And what is more discouraging than mean, bitter, butter, when a woman has tried her best to make it good? We all know how much labor a pot of butter represents, and then to have it *uneatable*,—dear me! And worse than all, be obliged to bear all the blame and have the name of making poor butter, when the fault is in the cow!

It will take a wiser head than mine to say why one cow makes good butter, while another, standing by her side in the same barn and having the same care and feed, milked by the same hand also, makes poor. I can only say in the words of "Old Aunt Tabithy," "I dunno heouw they due it, but they du."

Early last Spring my liege lord bought a Jersey heifer, full blooded, of good size, with the "points" of a good cow. She dropped her calf the middle of May, she being then three years old. The calf was a large, handsome fawn-colored fellow, and grew finely, weighing almost one hundred pounds when the butcher took him in charge at the age of four weeks. Since then "Mollie Jersey," as we all call her, has done well. Her milk is small in quantity but rich in quality, and *such butter!* She has made 8½ pounds a week (remember she is a three-year-old) in good feed, and during the winter has made from three to five pounds a week. She gives about four quarts of milk a day now. We have used all the milk we need for a family of four, and that is considerable; but let me also admit that all the milk used for puddings, &c., has been allowed to stand over night and then *skimmed* before being made up, thereby enriching the cream-pot, and the milk was still good enough. The butter churned last week was

as yellow as half the June butter one sees, and as sweet. It has no stable flavor (and though a boy of sixteen takes all the care of her and is proud of her too,) no bitter *twang*, no uncanny taste of cellar or any other thing than good, pure sweet butter "salted to suit the taste," and not very salt at that.

I wish I had weighed her butter the past season, but I have not. I only know it is now almost February, and we have used butter as freely as we pleased upon the table, and for cooking, have sold seventeen pounds, and I should judge there was enough stored away to last until next Fall. We feed her meal and fine feed twice a day, about a pint of meal and a quart of fine feed at a time. I scald my milk by putting a wire bread-toaster upon the top of the stove and setting the pan of milk on it. Do not scald too much, as it makes the butter *greasy*. I have churned this winter, about once in eight or nine days. Keep my butter in large stone pots, up stairs now—my June butter is in brine. I use no sugar or saltpetre. MRS. S. B. S——.

West Amesbury, Mass., Jan., 1871.

For the New England Farmer.

CROPS FOR 1871.

The question of Farm Crops for 1871, was discussed at a meeting of the Sunderland, Mass., Farmers' Club, Feb. 2.

L. P. Warner, who opened the discussion, said our crops should be such as to enable us to make the most of everything,—the most of the farm, the most of our labor and the most of our knowledge and talents. Those crops that require the most labor compared with amount of capital employed will be most likely to be most profitable so long as man earns his bread by the sweat of his brow. He mentioned tobacco, onions, garden vegetables and the small fruits. Hay and forage crops ought not to be neglected, for these are the basis of fertility of the farm. He had grown corn for winter fodder with satisfactory results. It was planted early in July, in rows about three feet apart and the hills eighteen inches. He cut it after the kernel was formed and before it was full in the milk.

Stooking Fodder Corn.

Three hills, two on one row and one on another, without cutting, were bound together, above the ears for the commencement of each stook. Around these, the corn as it was cut was placed. These three uncut centre hills operated rather as guys than braces. After the stook was firmly bound at the top, it was almost impossible to push one over. Of one hundred and forty stooks thus put up not one fell. The fodder cured well and was eaten with good relish by stock in winter.

Mr. E. E. Robinson was of the opinion that his crop of grass had been improved by the cultivation of tobacco, as one of the crops in a rotation. Thought tobacco, onions and grass should be the crops grown in 1871.

Mr. J. R. Smith believed that broom corn ought to be one of the crops for 1871. He thought the seed of a well ripened crop of broom corn worth more for feeding purposes than the Indian corn that would grow on the same field.

Mr. H. G. Sanderson agreed with Mr. Smith as to the value of broom corn seed, but said every farmer should raise more or less Indian corn, both for green and winter fodder as well as the grain.

Mr. T. H. Williams wanted to grow something he could both chew and swallow, and thought potatoes should not be neglected, because every farmer had some land better adapted to this than the tobacco crop.

Mr. E. G. Smith remarked it might answer for a farmer that had a good farm clear of debt to raise corn, broom corn and potatoes; but a young farmer just starting in business must grow such crops as will leave a margin for profit, or his pile will increase slowly. He would grow tobacco, onions and all the forage possible, but would let the Western farmer raise corn for him.

"WINNINGS OF 1870."—The *Turf, Field and Farm*, printed in New York city, gives a table of the "Principal Winning Owners of 1869 and 1870," from which it appears that "*Hon.* A. Belmont," President of the "American Jockey Club," owns horses that won $25,875 in 1869 and $34,755 in 1870. No statement is made of his losses, nor do we care to know anything about the balance of his account, or of the influences which were brought to bear on the results, as we regard the whole business as one of the most objectionable forms of gambling known in the country. But the question whether the "Rules" and practices of these men are to govern the trials of speed or any other part of the proceedings at the fairs of our agricultural societies, is one in which we are interested, and it is one that must soon be decided. To say nothing of the effect of being judged "by the company we keep," some of our societies have been driven to the mortifying necessity of notifying those to whom premiums were awarded for farm produce and agricultural implements that, after making up the purses, for horses, the funds were left so low that only a per cent. dividend could be paid to farmers and mechanics.

—Rabbit-breeding is carried on upon a large scale in London, Can., where there is a warren of five acres, surrounded by a board fence ten feet high, and containing at present two thousand rabbits. The cost of feeding and caring for these is twenty-five cents apiece annually, and the net profits from the whole warren five thousand dollars a year. The annual increase is an average brood of twenty-five to each pair.

STEAMERS ON THE FARM.

CORRESPONDENT, whose eyes and thoughts are evidently active, puts a series of questions to us, which we published last week, that others might be thinking them over, that will require some investigation and considerable activity of mind, to answer them satisfactorily either to himself or to whoever may attempt to reply.

He desires to know whether it is probable that engines for *steaming food*, and for *other purposes* on the farm, will ever become as common as mowing machines?

Briefly, for ourselves, we reply, that we think not. There was a necessity for the mowing machine which does not exist for the steamer. Hay, roots and grain may be kept in good condition for a comparatively long period, while grass, in the state to make good hay cannot. Large quantities of grass ripen at the same time, a considerable portion of which, if kept standing until its seeds were perfected, would be greatly reduced in value. The mowing machine, therefore, enables us to cut and make several tons of grass into hay, where we should secure one ton only, if obliged to cut the grass by hand.

Another question relates to the use of

Meal and Meadow Hay.

For some remarks upon this subject, we refer him to a reply to another correspondent on a similar topic.

A third inquiry is in regard to

Machines for Preparing Brush for Fire Wood.

He desires to know whether "wood reduced to fine pieces, or even to "shavings," will afford as much heat as wood in a coarser form? To fully answer this question would require something of a scientific essay.

Bakers heat their ovens by the use of fagots, —branches of trees and small bushes tied together. As they kindle readily, and give a great quantity of flame, they are used where a strong and quick heat is required. If they cannot get these, they use dry, pine wood. It was supposed at one time that locomotives could only be run by the use of dry wood. But some scientific person found that coal could be used by employing a "blower," which would kindle coal into a fierce heat, and send that heat along to the flues of the boiler.

There are many cases in domestic economy where wood, cut into small pieces, is the cheapest fuel, and this is a circumstance too much neglected. Count Rumford states that in very small fires for some purposes it is the most cleanly, the most convenient and most manageable fuel. He found by experience that any given quantity of wood, burned in a closed fire, gives near three times as much heat as it would if reduced to charcoal.

In order to heat intensely, a steady flame is required. The volume of flame need not be large, if it is constant. The operations of the blow-pipe show how readily metals may be melted in its flame. A few sticks, confined to a small space and kindled into a flame, will produce a powerful heat. This is often done in the summer season by the farmer's wife. A few small, dry sticks are placed directly under the tea kettle and ignited, which soon set the "kettle singing," and yet scarcely warming the room to any perceptible degree. In such a case, charcoal or large sticks, would not heat the water half as quickly as fagots or small pieces of wood, though twice as much were used of the large pieces.

But our correspondent may wish to know whether it is economical to use a machine for cutting brush into small pieces to be used as fuel. This will depend upon circumstances. If wood is worth $7 to $10 a cord by hauling it a mile or two, that would be a good reason for using the brush as fuel. And if a horse or steam power were used for other purposes on the farm—which is sometimes the case—then it would cost comparatively littte to cut the brush, and it might then be economical to do so, but if this work were to be done by hand, it might scarcely be economy to do it, even if wood were worth seven or eight dollars a cord.

Some of his other inquiries will be noticed hereafter, and we invite the readers of the FARMER to help us in solving his problems.

DEEP PLOUGHING FOR WORN-OUT LANDS.—The agriculturist should know that all soils, and even granite rocks, contain more or less of the elements of vegetable growth. Soil while in a dense state, so compact that the gases which form the atmosphere, with the aid of the sun and rain, heat and cold, cannot penetrate and decompose them, will

be sterile; while by disintegrating them they will become fertile, and their power for absorbing and combining with manurial substances greatly increased. Therefore it is that the same quantity of manure, the same season, and the same kind of land, yields far greater returns where the land has been deeply and thoroughly pulverized.

LAMBSKINS FOR LADIES' OVERCOATS.

In a climate like that of New England, warm outside garments are indispensable both to comfort and health. These are too often sought in fragile and very expensive materials, when articles which are quite as handsome, cheaper, and stronger, may be found much nearer at hand.

The sack coats, as they are called, now so fashionable, are among the most convenient, comfortable, and *reasonable* garments ever introduced. Some of them, made up of expensive materials and burdened with a prodigality of trimming, are as costly as they are showy, and confer no more warmth than one of less pretensions. A correspondent of the New York *Tribune* gives the following process for preparing lambskins for clothing material:—

"Make a strong suds with hot water; let it get cold, and wash the skins, squeezing them carefully to get out all the dirt from the wool; wash the soap out with clean, cold water, and cover them with water for twelve hours; then hang them over a pole to drain; when partially dry, stretch them carefully on a board, and when a little damp, sprinkle on them an ounce each of pulverized saltpetre and alum; lay the flesh sides together, and hang in the shade for two or three days, turning them over every day, to bring the under skin uppermost, till they are perfectly dry; then scrape the flesh side till all scraps of flesh are removed; rub it with pumice or rotten stone and with the hands; then lay the cloak pattern down on the flesh side of the skin, trace it round with a pencil, and cut it out with a sharp knife; overcast the edges together on the wrong side, and line with quilted silk. No collar, fur, or trimming is worn with an astrachan or lambskin cloak."

The wool of Cotswold, Leicester, and other long-wooled sheep, prepared in this way, and trimmed with some bright material, will be found comfortable, and will greatly resemble the "Astrachan" sacks which are now considered so desirable.

COMMISSIONERS ON CATTLE DISEASE.—The Commissioners appointed by the Governors of several States met for comparison of notes at Albany, Feb. 9. There were present from

New York—General Patrick, Doctors Moreau, Morris, and Lewis F. Allen.
Massachusetts—Dr. E. F. Thayer and Levi Stockbridge.
Connecticut—E. H. Hyde, T. S. Gold, and H. L. Stewart.
Rhode Island—Dr. E. M. Snow, Samuel W. Church, and Edwin Darling.
Maine—S. L. Goodale.

Dr. Thayer was appointed chairman, and Mr. Stockbridge secretary.

After a full interchange of views and statement of facts the Commissioners were unanimously of the opinion that the disease was easily prevented, provided that prompt sanitary and restrictive measures were adopted.

The following prescription for daily disinfection of the cattle-yards was presented by Dr. Morris, and received the approval of the Commissioners, most of whom had tried it:—

Ten pounds of copperas, 60 gallons water, and one-half gallon 30 per cent. carbolic acid; total expense 25 cents per barrel for the preparation. The solution must be stronger if it is to be applied only twice a week, and the composition will accordingly be thus: Ten pounds copperas, 20 gallons of water and one-half gallon of 30 per cent. carbolic acid.

Farmers' Clubs and other agricultural associations were requested to aid in efforts to avert the evils now threatened. The following resolution was adopted:—

Resolved, That a committee be appointed to publish the best remedies for the cure of animals afflicted by contagious or infectious diseases, and their proper treatment when attacked by such complaints.

GREAT CROPS OF CORN.—Mr. A. J. Straight sends us a copy of the Richland, Wis., *Sentinel*, in which he publishes a statement claiming to have raised the past season on twenty-five acres an average of "fully one hundred and thirty bushels of shelled corn per acre." He says the corn can be seen and measured at any time. So we conclude it has not been shelled yet, and he does not inform us by what principle of estimation the amount of the crop was ascertained. Farmers in New England have raised over one hundred bushels per acre *by estimation*, but we never saw one hundred bushels of corn shelled from the ears that grew on a single acre, and we would willingly travel one hundred miles to see that amount of corn on the stalks growing on one acre of land.

THE STOCK YARD OF AMERICA.

Dr. Latham contributes to the Omaha *Herald*, an article on cattle-raising in Texas, from which we make extracts as follows: Texas is truly the cattle-hive of America. While New York, with her 4,000,000 inhabitants and her settlements two and a half centuries old, has 748,000 oxen and stock; while Pennsylvania, with more than 3,000,000 people, has 721,000 cattle; while Ohio, with 3,000,000 people, has 749,000 cattle; while Illinois, with 2,800,000 people, has 867,000 cattle; and while Iowa, with 1,200,000 people, has 686,000 cattle; Texas, not 40 years of age, and with her 50,000 people, had 2,000,000 head of oxen and other cattle, exclusive of cows, in 1867, as shown by the returns of the county assessors. In 1870, allowing for the difference between the actual number of cattle owned and the number returned for taxation, there must be fully 3,000,000 head of beeves and stock cattle. This is exclusive of cows, which,

at the same time, are reported at 600,000 head. In 1862 they must number 800,000, making a grand total of 3,800,000 head of cattle in Texas. One-fourth of these are beeves, one-fourth are cows, and the other two-fourths are yearlings and two-year-olds. There would, therefore, be 950,000 beeves, 950,000 cows, and 1,900,000 young cattle. There are annually raised and branded 750,000 calves. These cattle are raised on the great plains of Texas, which contain 152,000,000 acres.

Ladies' Department.

From Harper's Magazine for Febrdary.

MARGUERITE.

BY KATE P. OSGOOD.

What aileth pretty Marguerite?
Such April moods about her meet!
She sighs, and yet she is not sad;
She smiles, with naught to make her glad.

A thousand flitting fancies chase
The sun and shadow on her face;
The wind is not more light than she,
Nor deeper the unsounded sea.

What aileth pretty Marguerite?
Doth none discern her secret sweet?
Yet earth and air have many a sign
The heart of maiden to divine.

In budding leaf and building nest
Lie hidden mysteries half confest;
And whoso hath the gift of sight
May Nature's riddle read aright.

Not all at once the lily's heart
Is kissed by wooing waves apart:
Not in a day the lavish May
Flings all her choicest flowers away.

Fair child! shall potent Love alone
Forget to send his heralds on?
Ah, happy lips, that dare repeat
What aileth pretty Marguerite!

MODERN HOUSEKEEPING.

The fashions of modern life are not favorable to good housekeeping. Here and there we meet with a woman who has made it an art, and carried it out to a beautiful perfection; but the number of those who have done so is small compared to the indifferent, the inefficient, those who interfere without organizing, and those who have given up their office to servants, retaining merely that symbol of authority called "keeping the keys." Few women above a very mediocre social position do anything in the house; and the fatal habit of fine-ladyism is gradually descending to the tradesman's and mechanic's classes; fewer still try to elevate the system of housekeeping altogether, and make it possible for ladies, even the artificial product, to take an active part in it with pleasure and profit to themselves. Yet French and German women keep house actively, and do not disdain the finer portions of the work. With the help of the machines which American need has fashioned for the home, this does not seem a very degrading task for women. One consequence wherever ladies of education are active housekeepers is, that a more scientific, compact, cleanly and less rude and wasteful mode of cookery obtains. And indeed that cooking question is a grave one, belonging especially to women, and quite as important in its own way as the knowledge of drugs and the mixing up of pills. Women do not consider it so, and ladies are rather proud than otherwise of their ignorance of an art which is one of their elemental natural duties. But they want to be doctors, if they object to be cooks. Yet how it can be considered honorable to get meat by manipulating assafœtida, and degrading to attend to the cooking of that meat when got—beneath the dignity of a woman's intellect to understand the constituent elements of food and what they make in the human frame, yet consistent with that dignity to understand the effect of drugs—why the power of bringing back to health should be a science fit for the noblest intellects to undertake, and the art of keeping in health an office fit only for the grossest and most ignorant to fill—is a nice distinction of honor, the quality of which I, for one, have never been able to understand; nor why that *imperium in imperio*, the kitchen, is a better institution than the centralization of authority dating from the drawing-room. Society in its simplest aspect is, as it were, the radical of our own more complex conditions, and do as we will, we cannot escape from the eternal fitness of this division of labor—the man to provide, the woman to prepare for use and to distribute. While, then, our housekeeping is bad because not undertaken with heart or intellect, and while our national cookery is still little better than "plain roast and boiled," we cannot say that we have gone through this lesson from end to end, or exhausted even this portion of our special acre.—*Macmillan's Magazine.*

LOVE GIFTS.

From time immemorial the most useful love-gifts have been rings, bracelets of hair, flowers, birds, scented gloves, embroidered handkerchiefs, and such like articles. Autolycus has, in his peddler's pack:"

"Golden quoifs and stomachers
For my lads to give their dears."

In ancient Greece, pretty birds were generally love-gifts; caged birds were sold in the market at Athens for that purpose. Among the Romans rings were exchanged; and this custom seems to have prevailed in all ages, and every country. Chaucer describes Cresseide as giving Troilus a ring with a "posy," and receiving one from him in exchange, and Shakespeare frequently alludes to such tokens. The rings that *Portia* and *Nerissa* present to their betrothed husbands play a conspicuous

part in the last act of "The Merchant of Venice;" and in "The Two Gentlemen of Verona," *Julia* says:

> "This ring I gave him when he parted from me,
> To bind him to remember my good will."

Swinburn, in his *Treatise on Spousals*, gives the following reason for the ring being the chosen emblem of true love, "The form of the ring being circular, that is, being round and round without end, importeth thus much, that their mutual love and hearty affection should roundly flow from the one to the other as in a circle, and that continuously and forever." In the most remote ages the ring or circle was used as an emblem of eternity; in Egypt and Greece, a usual form of emblematic circle was the serpent with its tail in its mouth, and this form has been frequently adopted in rings and bracelets.

The custom of breaking a gold or silver coin between lovers is also very ancient, and may probably have been derived from the old Athenian symbol. A piece of metal or wood was cut into two parts, one-half being retained by the native of Attica, the other given to the stranger whose acquaintance he had made. The bearer of the symbol, whether one of the original parties or only a friend, was entitled to all the rites of hospitality from the owner of the other half. Not to acknowledge this duty was considered scandalous and a crime. Coins were no doubt subsequently used because of the facility of recognizing the token by the device. A "bowed," or crooked piece of money, was preferred as a love token, being considered more lucky. These broken coins, pledges of love, are frequently referred to in poem and story.

Strutt mentions small embroidered handkerchiefs among the love favors in vogue in England in the olden time. They were about three or four inches square, "wrought round about," with a button or tassel at each corner, and another in the centre. Some were edged with narrow gold lace or twist, and then folded so that the middle might be seen; they were worn by accepted lovers in their hats or at the breast. These were so fashionable in Queen Elizabeth's days that they were sold in the shops at from sixpence to sixteenpence apiece.

Camden, in his *Ancient and Modern Manners of the Irish*, speaks of lovers presenting their mistresses with bracelets of woven hair; and among northern nations a knot was a symbol of love and fidelity. The origin of the expression true-love knot is not from true love, as might be supposed, but from the Danish *Trulofa fidem do*—I plight my troth. —*Temple Bar.*

FILL YOUR LAMPS IN THE MORNING.—Scarcely a week passes but we read accounts of frightful accidents from kerosene lamps exploding and killing or scarring for life, men, women and children. A simple knowledge of the inflammable nature of the liquid will probably put a stop to nearly all the accidents. As the oil burns down in the lamp, highly inflammable gas gathers over its surface, and as the oil decreases the gas increases. When the oil is nearly consumed, a slight jar will inflame the gas, and an explosion is sure to follow—death and destruction. A bombshell is no more to be dreaded. Now, if the lamp is not allowed to burn more than half way down, such accidents are almost impossible. Always fill your lamp every morning, and then you need never fear an explosion.

LADY NURSES.—In respect to nursing, that it should cease to be regarded as an occupation implying a social position not above a certain level, doubtless would demand that a high rate or renumeration and an excellent social position should be enjoyed by some of the body; but, provided there were a common bond of true knowledge and high feeling pervading the whole, these more fortunate members need be by no means numerous. Their honor would involve the honor of the whole; and the lady who, well instructed in her art, and with an enthusiasm which should render her incapable of degrading it, should spend her time in the abodes of the poor for such small sums as their means could afford, would find that the honor of the whole body was to her "a robe and a diadem," and would place her, as far as it places the curate, from having her social grade tested by her purse.—*Cornhill Magazine.*